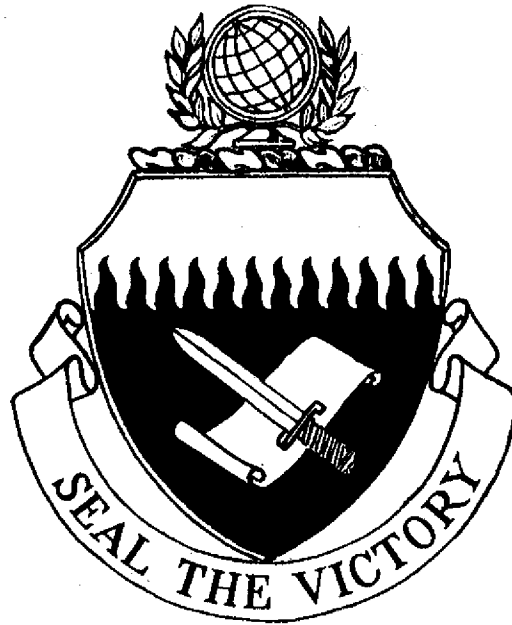


UNITED STATES ARMY

CIVIL AFFAIRS SCHOOL



ARMY EXTENSION COURSES

SUBCOURSE 33

PRINCIPLES OF WAR

FORT GORDON, GEORGIA

1 November 1959

GENERAL INSTRUCTIONS

This subcourse consists of three lessons and an examination. You will find the three lessons in this lesson book; the examination will be sent to you separately when you have completed all lessons. Check all contents of this envelope as itemized below, to ensure that you have all the texts, materials, lessons, and answer sheets required to solve lessons one through three.

The answer sheets for individual lessons are grouped together in the back of the lesson book. They are in reverse order to assist in their removal. Be certain that the number on the answer sheet corresponds with the lesson you are completing.

You may submit any or all of the lesson solutions for grading at one time. Mail the answer sheet in the addressed envelope inclosed.

Texts and materials required:

*FM 100-5, Field Service Regulations, Operations, dated
27 September 1954, with Change 2

*Return when you are notified that you have successfully completed the subcourse.

QUESTIONNAIRE

YOUR ASSISTANCE IS NEEDED

CA SUBCOURSE 33, PRINCIPLES OF WAR

Your evaluation of this subcourse is important to us in our effort to give you the best nonresident instruction possible. Please answer the items on this questionnaire after you have completed all of the lessons. Your comments and suggestions will assist in improving the quality of this subcourse and the Army Extension Course Program in general. It is suggested that you make notes as you study this subcourse and then submit the completed questionnaire with your solution to the examination. If more space is needed for your comments, use additional paper.

1. Are you satisfied with what you have learned as a result of taking this subcourse? (Strike out one; if answer is "no", explain.)

(Yes) (No)

2. Do you feel that this subcourse has adequately covered the purpose prescribed for it in the introduction? (Strike out one; if answer is "no", list that which was not covered.)

(Yes) (No)

3. Was there sufficient reference material included with the subcourse to enable you to answer the questions correctly? (Strike out one; if answer is "no", give specific instances below.)

(Yes) (No)

1 November 1959

4. Are there any questions, requirements, situations, or instructions that are in error, confusing, or difficult to understand? If so, list the specific cases here.
5. List here any suggestions you have for making this subcourse more interesting and/or informative.
6. If you desire a reply to specific comments you have made above, list below the comments on which you want more information, and PRINT your name and address in the space provided. (If no reply is desired, your signature is optional.)

NAME

MAILING ADDRESS

CITY ZONE STATE

DATE MAILED

PRINCIPLES OF WAR

INTRODUCTION

An understanding of the principles of war is essential to professional understanding of military history. Military history is of interest to the professional officer because of the lessons which can be learned from past military successes or failures. Any reader of military history can grasp the sequence of events which led to a particular victory or defeat, but the professional must evaluate and analyze the events if he is to profit from past military experience. This evaluation and analysis must be conducted within the framework of the principles of war, because these are the principles which regularly operate in war, and any lesson taught in a particular operation will reveal itself as an application, or lack of application, of the principles.

The principles of war are not confined to the combat arms in the presence of an enemy, but are applicable to all branches of all services in operations, combat or otherwise, and at all echelons of command. Each principle complements the other, and in some instances they even conflict. One principle cannot be applied to the neglect of the others. Sometimes the application of one or more principles may have to be partially sacrificed because of the circumstances existing at the time. The considered balance of these principles, to best meet any specific situation, is the aim of the successful military leader.

This subcourse consists of three lessons and an examination, as follows:

Lesson 1, Principles of War.

2, Fundamentals of Offense.

3, Fundamentals of Defense and Retrograde.

Examination

Eight (8) credit hours are given for the successful completion of this subcourse. You are not limited as to the number of hours that you may spend on any one lesson or the examination. For statistical purposes you are requested to enter in the space provided on the answer sheet the total number of hours spent on each lesson.

LESSON 1 - PRINCIPLES OF WAR

Credit Hours - - - - - 3

Text Assignment - - - - - FM 100-5, para 69-78.
Attached Memo. , App. 1-4.

Materials Required - - - - - None

Lesson Objective - - - - - To acquaint you with the principles
of war and their application; and to
examine some contemporary writings
that critically analyze the principles
of war.

Detach the answer sheet, enter your solutions as indicated, and
mail in the addressed envelope provided.

ATTACHED MEMORANDUM

1. GENERAL. The arts, sciences, and professions have their basic principles, axioms, and laws. The art and science of war are not excepted. Principles applicable to warfare have evolved through the centuries. Their origins derive from both successes and failures in war. Some principles date back to the writings of the pre-Christian era (Sun Tzu, 505 B. C. , had 13 principles). Napoleon lists 115 maxims, Clausewitz 7 principles, and Nelson 10.

The principles of war are officially enunciated in one form or another by all major military services, American and foreign. The US Navy, in its NWP 10, Naval Warfare, lists 12 principles of war applicable to naval warfare. The US Air Force in its AFM 1-2, USAF Basic Doctrine, lists nine principles. The US Army lists nine principles of war.

Some allied military services have more, others less. The French, for example, have only two principles --unity of will and freedom of action--while recognizing economy of force. Not all nations use the same terms; US terminology differs somewhat among the three major Services. The following list shows the titles of US principles of war and those of some other military powers.

<u>US Army</u>	<u>US Navy</u>	<u>USAF</u>	<u>British</u>	<u>Soviet</u>
a. Objective	Objective	Objective	Selection and maintenance of aims	Advance and consolidation
b. Offensive	Offensive	Offensive	Offensive action	Offensive
c. Simplicity	Simplicity		Administration	
d. Unity of command	Control	Control Cooperation (listed as separate principles)	Cooperation	Combined arms
e. Mass	Concentration	Concentration	Concentration of force	Concentration
f. Economy of force	Economy	Economy of effort	Economy of effort	Economy of force
g. Maneuver	Mobility	Flexibility	Flexibility	Maneuver and initiative
h. Surprise	Surprise	Surprise	Surprise	Surprise and deception
i. Security	Security	Security	Security	Adequate reserves
j.	Morale		Maintenance of morale	Morale
k.	Exploitation			Annihilation
l.	Readiness			

The nine US Army principles of war are discussed in FM 100-5, paragraphs 69 to 78. Supplemental discussion of the principles of war is contained below.

2. SUPPLEMENTAL DISCUSSION. The principles have application to

all branches of all services in all operations, combat or otherwise, and at all echelons of command.

Innovations, whether in the category of materiel, organization, or techniques, have had a profound effect on tactics and techniques. Each new development (bow and arrow, gunpowder, poison gas, tanks, airplanes, parachutes, divisions, corps, nuclear weapons, to name a few) has provoked two questions: How can the maximum advantage be gained from the exploitation of the development? What is the best defense against it? In each instance, solution is found in the application of common sense. The results have brought changes in emphasis in application of the principles of war without fundamental change in the principles themselves.

A principle of war is a basic military rule or guide which, if applied intelligently, increases the probability of producing favorable results. The principles of war are aids in grasping the essentials of the art. In essence, the principles of war constitute a collection of items of common sense and they must be understood in their entirety in that light-not as dogma to be rigidly applied. All nine principles most often complement each other and normally are mutually dependent. However, in some situations they conflict. The considered balance of these principles to best meet each specific situation is the aim of the successful military leader. These principles may be learned in a short time, but a whole lifetime can be spent in the study of their application in war.

Mere knowledge and understanding of the principles of war will certainly not provide us with the solution of a problem of war. The human element-courage, morale, discipline, leadership-has a direct bearing on the outcome of any operation and is so vital to success that it deserves our constant attention. However, knowledge and understanding of the principles of war will lend order and guidance to a mind trained to analyze facts, form conclusions, and arrive at a decision. In the final analysis, sound judgment and tactical sense are of vital importance to the successful application of the principles of war.

Presented below are key thoughts applicable to each principle, with a brief historical example of each and further pertinent discussion.

3. **OBJECTIVE.** Every military operation must be directed to a clearly defined, decisive, and obtainable objective. The destruction of the enemy's armed forces and his will to fight is the ultimate military objective of war. The objective of each operation must contribute to this ultimate objective. Each intermediate objective must be such that its attainment will most directly, quickly, and economically contribute to the

purpose of the operation. It must permit the application of the maximum means available. Its selection must be based upon consideration of means available, the enemy, and the area of operations. Secondary objectives of any operation must contribute to the attainment of the principal objective.

The mission of the Army is "to defeat the enemy forces in land combat and gain control of the land and its people." A better understanding of the means of effectively accomplishing that part of the dual mission of gaining control of the land and its people is afforded by a consideration of the objectives of civil affairs operations, which are to

(1) assist military operations by maintaining order, promoting the security of the occupying force, preventing interference with military operations, reducing active and passive resistance, releasing combat troops from civil administration, and utilizing local resources in aid of military objectives.

(2) support and implement national policies toward which modern military efforts are directed. Support of national policy is an inherent responsibility of every member of the Armed Forces.

(3) fulfill obligations arising from treaties, agreements, or customary international law which impose an obligation upon the occupation forces to assume responsibility for the care and control of civilian personnel in an area under civil affairs control. For example, the Hague Regulations provide that the authority of the legitimate power having in fact passed into the hands of the occupant, the latter shall take all measures in his power to restore, and ensure, as far as possible, public order and safety, while respecting, unless absolutely prevented, the laws in force in the country.

(4) provide for the transfer of responsibility from the military commander to a designated civil agency of government. In point of time, this will occur last and will mark the termination of control by the military authorities.

This fourfold objective indicates that civil affairs is the combat commander's means of accomplishing the military objectives in such a manner as to leave the bases upon which a peace can be built and to gain the support, or at minimum, compatibility of the population with United States aims and security objectives when the fighting ends.

The one principle of war which is controlling, and therefore the most important, is that of the objective. Without an objective, and

adherence to it, the other principles become meaningless. There is always the danger that the goal will be obscured and the means become the end. Once the objective has been stated and understood, the whole problem becomes clearer. The military commander must consider each contemplated action in the light of his assigned or selected objective. The nation, the armed forces, and each element of the armed forces down to the lowest echelon--the man with the bayonet in his hand--must all have their own objectives. But in the final analysis, each objective should contribute to the national objective. The selection of the best objective may be the most difficult part of making a decision.

Selection or assignment of the proper objective(s) is the first and most vital step in the application of all the principles of war. This principle gives us the what. The other principles are guides to the how to attain the objective(s) selected.

4. OFFENSIVE. The principle of the offensive embraces seizing, retaining, and exploiting the initiative. In November 1942, with Russia hard-pressed by the Germans, the situation in North Africa unfavorable, and the United States still not completely prepared, we took the offensive by landing as part of an Allied Force in North Africa. On that occasion, the initiative passed to the United States and its Allies, and was retained for the rest of the war.

The offensive is attack--to secure or to maintain the initiative, to preserve freedom of action, and to impose one's will on the enemy. The great advantage of offensive action is the initiative, which permits the selection of objectives and of the place, time, and means for accomplishing the mission. Only by continuing offensive action can a clear-cut military decision be gained. Achievement of high morale and an aggressive spirit are facilitated by the offense. Our military doctrine is to keep the enemy off balance by offensive action.

The principle of the offensive is and must be applied even in defensive operations--by an aggressive conduct of the defense including combat patrols, massing of fires on suitable targets, and counterattacks. Such actions include limited objective attacks to destroy the enemy, spoiling attacks, and attacks to gain more favorable terrain for the conduct of the defense. If forced to either defensive or retrograde action, every opportunity must be sought to turn the situation to an offensive advantage in order to kill as many of the enemy as possible.

Because of the immense destructive effort of nuclear weapons, great imbalances of forces may be quickly eliminated or even reversed. Thus, a commander must be prepared to shift more quickly and more frequently from the defense to the offense than has been true in the past. Those quick changes from defensive to offensive and back again may tend to obscure the dividing line between these two types of combat as we know them today, but the offensive, the retention of the initiative and freedom of action, will remain as a principle.

The role of Civil Affairs in the offensive is to control the civilian population, prevent them from interfering with combat operations and disrupting supply lines, and to marshal local resources to assist the commander in his mission.

5. **SIMPLICITY.** Simplicity is a quality or state of being clear and uncomplicated and is essential in plans if they are to be effectively executed. A simple plan is easier to execute than a complicated plan and thus more likely to be successful. Plans must work the first time in battle. Rarely is there opportunity for rehearsal and the stakes are high. Simple plans facilitate retention of flexibility, enhance control and coordination of fires and movement, and decrease support problems. Simple plans permit continuation of execution in the face of interruption of control means.

Simplicity takes on added significance with the advent of nuclear weapons. Simplicity helps to create order and the atomic battlefield will be a more disorderly place than the nonatomic one. Also, the simple plan is the flexible plan and flexibility is paramount when the entire balance of forces may be altered in an instant, or a command echelon be wiped out in a flash. Operations must go on and opportunities must be exploited in spite of missing echelons or lack of communications. Simplicity in plans and orders offers the best chance of success under these conditions.

Simplicity is also applied to organization, methods, and means in order to produce orderliness on the battlefield.

The Civil Affairs organization is designed to deal with the problems attending the civilian population in the simplest manner. It is a flexible organization which can be tailored to handle any form of Civil Affairs operation. Its operations are developed on detailed, simple plans. Its staff is functional and flexible. As is true with all other supporting organizations, it is essential that all military plans be complete, simple, and contain appropriate guidance and direction to ensure continuity and the accomplishment of the Civil Affairs mission.

6. **UNITY OF COMMAND.** The principle of unity of command requires that for every task there should be unity of effort under one responsible commander. Unity of effort is the coordinated action of our forces toward a common goal. Unity of command should ensure unity of effort and thus apply the maximum power of available forces against the objective at the decisive time and place. The unity of effort achieved by UN forces in Korea is an example of the principle of unity of command.

A nuclear weapon will have effect not only in the zone of a division, including the air space over it, but may well spread over into the zones of the adjacent divisions. Therefore, the decision to employ such a weapon must rest in the hands of the commander who is in the position of having overall knowledge of the situation and control of all affected units. The successful attack of fleeting targets with nuclear weapons means that the intelligence system, the communication system, the supply of weapons, and the delivery means must come directly under a single commander. There will not be time for conference, compromise, and vague "cooperation." Unity of effort must be ensured by unity of command. All commanders secure the effect of unity of command by conducting operations in the absence of specific instructions as their knowledge indicates their higher command would direct if able.

The military nature of Civil Affairs operations requires that responsibility and authority for the establishment and conduct of those activities be vested in the senior commander. The commander must appreciate that the establishment of good public relations, which underlies all civil affairs, is a command responsibility. Subordinates may be charged with specific assignments or missions, but the commander himself must establish the tone of civil affairs. It is a profound command responsibility at all levels of command.

7. **MASS.** The principle of mass demands the achievement of superiority of power at the decisive place and time for the decisive purpose. The principle of mass involves more than just superior numbers. It includes use of all available facilities, superiority of firepower, supply, supporting services, fighting skill, resolution, discipline, courage, administration, and leadership. For the Allied cross-channel operation in 1944 to knock Germany out of the war, the largest invasion force the world had ever known was concentrated in the United Kingdom. It was a carefully balanced team of Army, Navy, and Air Force elements, thoroughly trained for its tasks, superbly equipped and supported. The focusing of the effort of this force upon the beaches of Normandy, undertaken even though it was expected to reduce potential results in the Mediterranean Theater, is an illustration of the application of the principle of mass.

Mass in the form of atomic fire may be substituted in some tasks for masses of infantry, tanks, and nonatomic fire. This does not imply that atomic fire alone can always be decisive. Its effects may last for only a short time or cover a limited area. Although firepower alone has seldom been decisive, within appropriate circumstances atomic fire may be employed to provide a major portion of the mass required at the decisive time and place.

Civil Affairs focuses upon the establishment of satisfactory relationship with the local community to support the military operation with all available facilities. To a large extent this is dependent upon the ability to deal harmoniously and sympathetically with people. This faculty is desirable in the conduct of military affairs; it is indispensable in the conduct of civil affairs. It entails, moreover, considerations not present in the military sphere. Such administration and leadership at the decisive time and place enhances the principle of mass and permits the combat commander to use his available manpower for fighting.

8. **ECONOMY OF FORCE.** The principle of economy of force contends that the allocation of available combat power must be such that all tasks together get results effectively. In order to mass sufficient strength in the United Kingdom for the Normandy invasion, the Allies used minimum forces in Italy and the Pacific. Troop lists for the Normandy invasion were carefully drawn up and balanced, while troop lists for the Pacific were thoroughly examined and reduced to the bare essentials. This same consideration also applied to materiel.

Economy of force does not exclusively imply "skimping" in one area in order to provide maximum power in another, but its application does permit, within its overall meaning, concentration of forces in strengths required, so that all forces are used to the best advantage. This includes such considerations as apportionment of forces and national resources.

Nuclear weapons will often permit the employment of smaller troop units than previously was possible. Certainly, they will give the commander more flexibility in allotting his forces. In secondary attacks, as with main attacks, the commander may assign troops and nuclear weapons in various combinations to achieve the required combat power.

To effect an economy of personnel, the duties of Civil Affairs personnel are confined, whenever possible, to supervision over existing or re-established civilian authorities. A major purpose of Civil Affairs is to mobilize local resources in support of civilian requirements. Services of civilian doctors are obtained to care for the injured refugees.

Necessary supplies are moved from unaffected areas to points of need and only where such supplies are inadequate are they augmented by United States supplies.

Civil Affairs operations contribute materially to the military operation. The resources of the area are mobilized in support of our forces as well as for the satisfaction of the commander's responsibility to meet minimum essential civilian requirements. Assistance is provided the technical services in the local procurement of required supplies at a considerable saving in time, shipping space, and, often, money. Civil Affairs elements assist in the procurement of port and rail facilities, communications, storage facilities, necessary housing and utilities. They assist in obtaining local civilian labor for essential labor that would otherwise require the diversion of combat troops. The extensive Civil Affairs organization functioning constantly at the grass roots level constitutes an effective source of information and intelligence which is of vital importance in the pursuit of combat.

9. MANEUVER. The principle of maneuver states that one's military resources must be positioned to favor the accomplishment of the mission. Maneuver is the movement of combat power to provide the necessary mass at the proper time and place for attainment of the objective. Maneuver enhances combat power since only through maneuver can we so position our military resources that they can apply their full power, or mass, at the decisive point and time. The encirclement of some 300,000 German troops in the Ruhr by the US Army during World War II is an outstanding example of the principle of maneuver. Maneuver is most effective when not disclosed to the enemy. The principle of maneuver is not limited to the movement or maneuver of troops alone. There is maneuver of fires and maneuver of logistics, maneuver of the means for controlling areas and populations, and maneuver of political force. In applying this principle, time, distance, and the means and power of maneuver must be considered.

To apply maneuver to establish the concentration of forces or mass required at the decisive point and time, mobility is essential. This mobility may be achieved by improvement in ground means but will be limited in flexibility unless it exploits, increasingly, air means of transport. It means that air supply or even air lines of communication must be used to full capacity routinely rather than considered as an emergency means of supply. Small, mobile, battle groups of all arms, containing their own fire and logistical support, may be isolated for long periods of time deep in the enemy rear. Their continued existence may well depend upon their mobility.

The application of even such force as is required to win a war has a tremendous effect upon the civil population, and the affected civil population, in turn, can have a tremendous effect upon the commander's ability to continue the application of required force. A previously normal populace can become an uncontrolled mob, a multitude of scared, hurt, and disrupted people who seek only to flee from further injury with whatever possessions as are intact and obtain, by any means possible, that which is necessary to remain alive. They clutter the roads and interfere with, or prevent, the movement of troops and supplies. Their injured ring about the combat commander's medical facilities in numbers beyond their capacity to treat. They take from his supplies, if for no other reason than to stay alive. Their numbers screen enemy agents and saboteurs who harass troops from the rear. They do all this and more; they all but stop the military operation in its tracks, unless proper action is taken to anticipate and plan in advance such civil affairs controls as will effectively prevent civilian interference with military operations and meet the emergency requirements of a war-torn people.

10. SURPRISE. The principle of surprise connotes striking the enemy when, where, and in a manner for which he is unprepared. Secrecy of plans, concealment of movements and strengths, feints and demonstrations, and rapidity of movement all contribute to surprise as do resourcefulness and aring.

Combat deception and psychological warfare contribute to surprise. There may be surprise in time, place, direction, size of force, tactics, weapons, or supply considerations. Surprise can be effected by varying operating procedures, by making use of unfavorable terrain, by the employment of new weapons, or by operations in unfavorable weather. Surprise can have the effect of increasing combat power.

An excellent example of initial surprise is Washington's crossing the Delaware River on Christmas night, 1776, and his attack against the Hessian garrison in Trenton on the morning of 26 December.

If we can surprise the enemy with our atomic attacks, we may increase the effectiveness of those attacks severalfold and thus hasten the destruction of his forces and his will to fight.

Civil Affairs can assist in surprise by keeping civilians off certain roads to allow rapidity of movement. In their operations against guerrilla action, Civil Affairs has the basic objective of separating guerrilla forces from civilian support and preventing their getting information.

11. SECURITY. The principle of security argues for the prevention of surprise. Through security, we retain freedom of action. Through proper application of security, the enemy is prevented from interfering with our freedom of action. The prevention of surprise and the retention of freedom of action are accomplished by calculated and continuous readiness including use of essential security forces, suitable formations and dispositions, and continuous and aggressive efforts to secure and evaluate information.

At the beginning of World War II, the first concern of the United States was its own security while preparing to launch its own offensive. Thus, bases in Greenland, Iceland, Alaska, and Hawaii were secured. With the present rate of improvements in range and speed of the modern implements of war, such bases assume greater importance to a nation's security.

On the atomic battlefield, when the enemy has the power to destroy a force of almost any size once he has located it, forces must be dispersed and concealed, and their vulnerability to atomic attack reduced. The extent of dispersion must, however, be balanced with mobility to avoid defeat.

Security depends primarily on the success of civil security measures for the control of the civilian population including the prompt establishment of reliable local police forces, registration of civilians, control of circulation and communications, and the fostering of friendly relations with the civilian population; military security operations including counterintelligence measures to prevent disclosure of information to the enemy, espionage, and sabotage; and operations to separate guerrillas from civilian support.

In our brief analysis of the US Army principles of war we have examined some of the problems essentially civilian in nature which will confront a combat commander on the battlefield, and have witnessed that the principles are as applicable to Civil Affairs as they would apply to factors dealing with personnel, intelligence, operations, and logistics.

PRACTICAL EXERCISES ON PRINCIPLES OF WAR

1. GENERAL SITUATION. In June 19__ Aggressor launched an invasion of SOUTH KOREA. US Forces were committed piecemeal into the struggle as units became available. The limited number of troops available to defend the position required the assignment of large sectors to the units in the forward positions.

To adequately garrison its sector the 10th Infantry Division placed three battle groups online with the 2d BG, 7th Inf as division reserve. The 2d BG, 10th Inf had been retained as Army reserve.

2. SPECIAL SITUATION.

a. On 29 Aug the 1st BG, 87th Inf occupied its sector without enemy contact (see Figure 1). Only minor guerilla activity occurred in the area. Co E, 2d Med Tk Bn, 69th Armor attached to 1st BG, 87th Inf reinforces fires of Mort Btry, 1st BG, 87th Inf with one 105mm howitzer battery.

b. Col, 1st BG, 87th Inf decided to defend the battle group sector (16,000 yards) by utilizing platoon and squad strong points. Most of these strong points were not mutually supporting and several could be reached only with difficulty. One platoon of tanks was attached to Co B and D. The battle group reserve consisted of the tank company (-) and one platoon of Co A. The Recon Plat, 1st BG, 87th Inf was directed to maintain contact with 2d BG, 29th Inf. The Mort Btry is in general support.

c. Weather and Terrain. The weather during the period is warm and clear. The WARRIOR River is unfordable except at the two fords indicated in Figure 1. At these points both vehicles and foot troops may cross with some difficulty. The marshes can be crossed by foot troops with great difficulty. Wheeled vehicles are restricted to the limited road net. Cross-country movement of truck vehicles is limited due to the rugged terrain.

d. Both friendly and Aggressor forces possess atomic weapons; however, atomic weapons have not been employed to date. Aggressor possesses a numerical superiority with a limited armored capability. Friendly forces have air superiority.

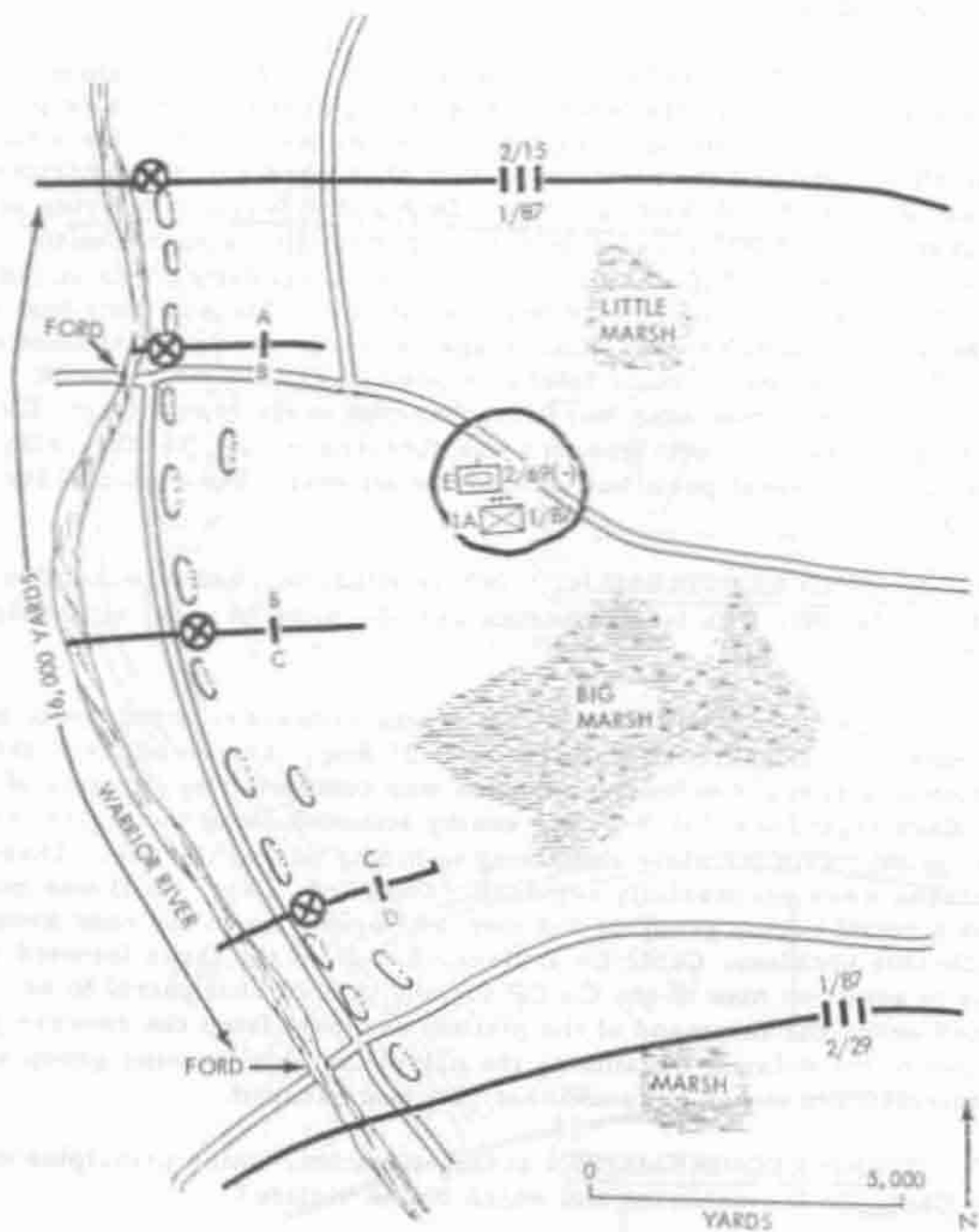


Figure 1.

3. FIRST REQUIREMENT. In the occupation of this defensive position, which principles of war did Col, 1st BG, 87th Inf emphasize and which did he violate?

4. SITUATION CONTINUED. On the night of 30 Aug the enemy attacked in force across the WARRIOR River against the defensive positions of the 1st BG, 87th Inf. The main crossing was made in the vicinity of the northern ford and the positions in that area were quickly overrun with heavy casualties to the defending force. Co A and B fought a delaying action and by dawn they had organized a defense in conjunction with the battle group reserve north of BIG MARSH. The enemy secondary attack in the vicinity of southern ford forced the withdrawal of Co D to positions just south of BIG MARSH. Minor probing attacks against Co C were repulsed and at dawn Co C occupied its original defensive positions; however, several enemy groups of 4-7 men each had been observed to its rear. Capt, Co C requested permission to withdraw but was directed by Col, 1st BG, 87th Inf to remain in present positions and hold at all cost. See Figure 2 for dispositions.

5. SECOND REQUIREMENT. In this situation, which principles of war did Col, 1st BG, 87th Inf emphasize and which did he most seriously violate?

6. SITUATION CONTINUED. Co C was ordered to withdraw to positions north of BIG MARSH on afternoon of 31 Aug. The withdrawal and occupation of a reserve defensive position was completed by morning of 1 Sep. Each night from 2-6 Sep, the enemy attacked along the entire front against 1st BG, 87th Inf while remaining in hiding during the day. These night attacks were successfully repulsed. On 8 Sep, Capt, Co D was notified that a small enemy group of 3-4 men was operating in his rear area. To handle this problem, Capt, Co D directed each of the three forward rifle platoons to send two men to the Co CP for use in a combat patrol to be organized under the command of the platoon sergeant from the reserve platoon. Due to the delay in organizing the patrol the small enemy group was never detected and it was assumed that they had escaped.

7. THIRD REQUIREMENT. In this situation, which principles of war did Capt, Co D emphasize and which did he violate?

8. SITUATION CONTINUED.

a. On 14 Sep, the 1st BG, 87th Inf successfully crossed the WARRIOR River and was advancing against the retreating enemy. Just

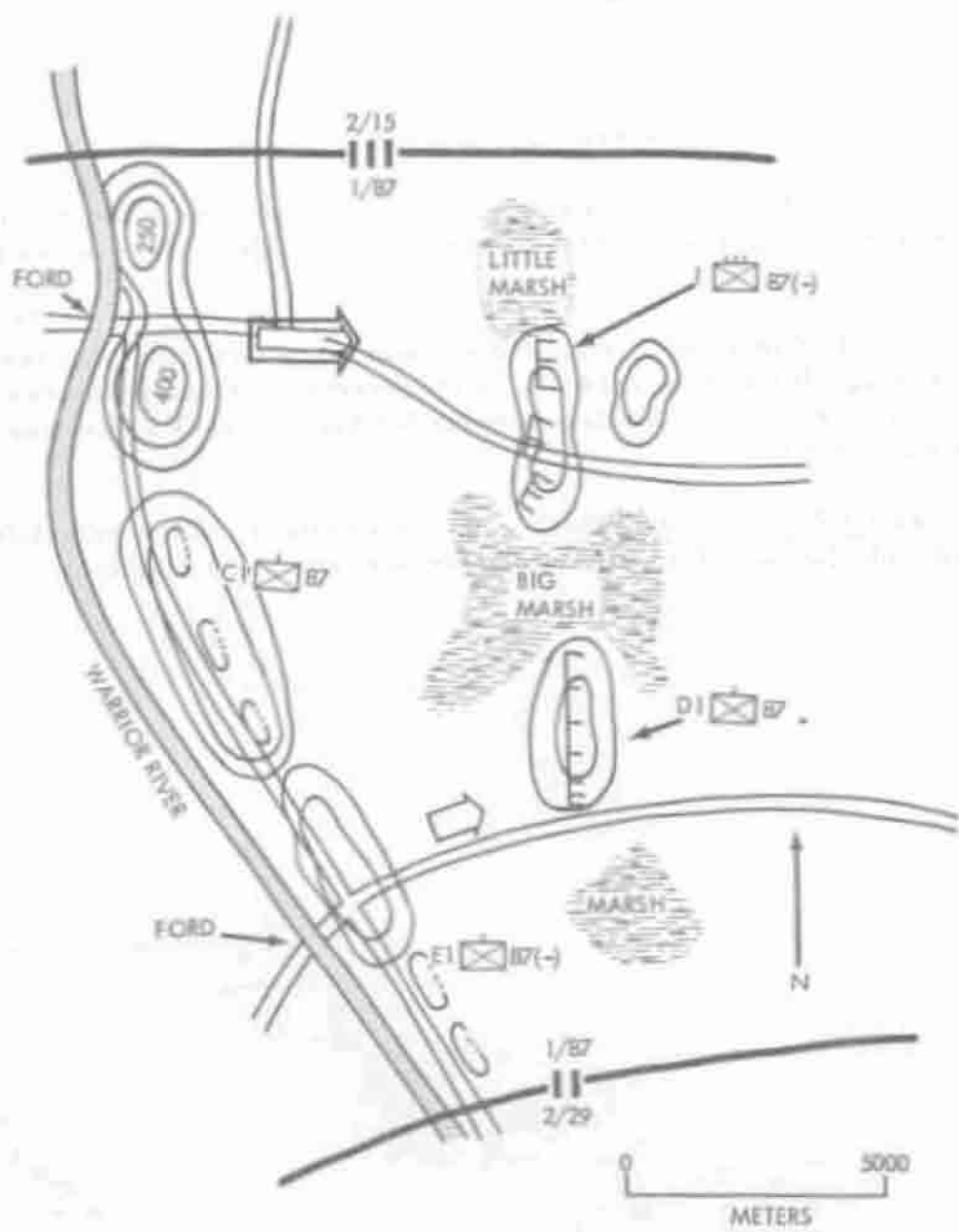


Figure 2

prior to darkness, Col, 1st BG, 87th Inf formed a task force by attaching to Co C the following:

(1) Sufficient Infantry carriers to mechanize the foot elements.

(2) One tank platoon.

(3) One platoon 4.2" mortars.

(4) Section assault gun platoon.

b. This task force was given the mission of breaking through the Aggressor rear guard and seizing the division objective, 5 miles to the west.

c. The task force attacked an hour after dark and successfully smashed through the enemy rear guard and overran the enemy forces retreating along the main road. By morning (15 Sep) the task force was on the division objective.

9. FOURTH REQUIREMENT. In this situation, which principles of war did Col, 1st BG, 87th Inf emphasize and which did he violate?

APPENDIX 2 TO LESSON 1, CA SUBCOURSE 33

The following article is reprinted from The Military Review, May 1955. The views expressed in this article are the author's, Lt Col Fallwell, and not necessarily those of the Department of the Army or the US Army Civil Affairs School.

THE PRINCIPLES OF WAR AND THE SOLUTION OF MILITARY PROBLEMS

A BASIC aim of the Command and General Staff College is to develop, in potential commanders and staff officers, the ability to solve military problems. This the College attempts to do--and does quite successfully--by presenting the basic factors of, and their influence on, the problem and, through the use of appropriate forms, a sound, logical approach to the solution of problems is reached.

Yet commanders and staff officers--including some graduates of the College--do make wrong decisions. There are many reasons for this--mental, emotional, and physical. The factors and their influence may be incorrectly estimated. The problem itself may not be fully recognized. The logic may be faulty. The thought processes by which a problem is solved may be misunderstood. At the risk of over-simplification, it can be stated that the basic mental reasons for poor decisions are three in number: lack of understanding of the problem, lack of knowledge of the factors and their influence on the problem, and incomplete knowledge and use of thought processes in solving the problem.

Adequate knowledge of the factors involved in a military situation and their influence on the decision requires years of experience and study. Although our military colleges can help provide knowledge, they can never completely replace personal experience. On the other hand, our schools can and do provide instruction and practice in sound methods of recognizing problems and arriving at decisions.

ESTIMATE OF THE SITUATION

The best example of such a method is the commander's estimate of the situation which receives great emphasis at the Command and General Staff College. The estimate--its present form is a product of many years' study and experience--provides for a natural, sound approach to the solution of a tactical problem. Following a statement of the mission, the

significant conditions of weather, terrain, and the opposing forces are listed. Next are listed those courses of action which appear feasible and which, if successful, will accomplish the mission. Then the commander mentally "war-games" each of his courses of action against each enemy capability and determines the probable outcome, while further testing the feasibility of his courses of action and determining the factors which are most significant. After the "war-gaming" the commander compares his courses of action in the light of the significant factors. Finally, he selects the best course of action and embodies it in his decision.

Thus, in our estimate of the situation, we have followed what the United States Naval War College terms the "natural mental process for solution of any problem." (See Figure 3).

An orderly process? Yes. Sound? Yes. Simple? No.

The complexity of the estimate process arises from the numerous chances of error which present themselves. First of all, the estimate must contain a number of subordinate estimates. At the outset, the mission must be estimated. This, of course, is a relatively simple matter if one has been ordered to seize and hold a certain hill, but is it a simple matter when a commander must decide whether to attack or defend? If the commander does not state his mission correctly, then any decision he reaches is likely to be a bad one.

The statements of the conditions of weather, terrain, and opposing forces constitute not only facts but--in a large measure--estimates as well. Here, staff estimates are usually involved--personnel, intelligence, operations, and logistical estimates. Perhaps the intelligence estimate offers the greatest chance for error--but our own capabilities can also be misunderstood.

The selection of courses of action involves another estimate--or series of estimates. If only one or two courses are listed, there is the possibility that the best will not be considered. If too many courses of action are considered, then the estimate will be very long and involved.

Finally, there is the estimation involved in analyzing and comparing the various courses of action in order to select the best.

According to the Naval War College's Sound Military Decision:

"Logical thought separates the rational from the irrational. Its use avoids the wastefulness of trial-and-error method. By its insistent employment, dormant powers of reasoning are awakened, and the danger that

SOLUTION OF A PROBLEM

The Natural Mental Process

- Step 1. The establishment of the proper basis for solution of the problems, including (a) a grasp of the salient features of the situation, (b) a recognition of the incentive, and (c) an appreciation of the effect desired.
- Step 2. The actual solution of the problem through the employment of the reasoning power in the consideration of various possible solutions, and the selection of the best solution.
- Step 3. The conclusion of decision embodying the best solution.

The Commander's Estimate

- (a) Determination of the mission.
- (b) Statement of the factors of weather, terrain, and own and opposing forces.
- (c) Determination of those suitable courses of action which, if successful, will accomplish the mission.
- (d) Analysis of each course of action in light of each enemy capability.
- (e) Comparison of courses of action.
- (f) Conclusion as to best course of action.
- (g) Decision embodying the best course of action.

Figure 3

attends instinctive, spontaneous, impulsive, or emotional acceptance of conclusions is lessened. The evil effects of an inclination to dodge the issue or of a disinclination to face the facts are thus also avoided."

Man is a rational animal. Man's rationality, however, is unfortunately influenced strongly by tradition, habit, bias, and a lazy tendency to accept plausible suggestions. Too often what little reasoning man does is concerned with justification of a decision already reached.

A notable characteristic of the human mind is a constant search for reliable rules of action inspired by an intuitive belief in cause and effect. If not provided with sound rules, man will devise his own out of his own experience and follow them, although they may be faulty. This drive for valid guides has given us a mass of proverbs, adages, and aphorisms dating from antiquity.

THE PRINCIPLES OF WAR

We must reckon, then, with this psychological drive for valid guides; and the best solution is to provide ourselves with valid rules. Since warfare is a science--that is, since the phenomena of war follow the natural law of cause and effect--we should be able to state the general relationships between causes and effects in war, although not with the quantitative precision customary in the physical sciences. In other sciences such statements are known as principles--they are also natural laws because they express facts of nature.

The search for valid rules of conduct by the armies of the world has led to the formulation of principles, rules, maxims, and doctrine in an effort to capitalize on past experience. A vast number of causal relationships and historical examples form the science of war. However, the mere compilation of knowledge is not enough. Too many commanders have failed because they blindly applied methods which--however successful in the past--were inadequate in a new situation. The resulting disillusionment led to two schools of thought. One group averred that brilliantly successful generals like Napoleon and Alexander were geniuses whose successes were due to intuition rather than methods, and that warfare could never be reduced to a science. Maurice de Saxe, Marshal General of the armies of France, once stated that:

"War is a science so involved in darkness, and attended with so much imperfection, that no certain rules of conduct can be given concerning it; custom and prejudice, the natural consequence of ignorance, are its sole foundation."

Fuller in his Foundations of the Science of War, quoted Dragomirov as stating:

"First of all, science and theory are two different things, for every art may and must be in possession of its own theory, but it would be preposterous to claim for it the name of a science. . . . Nobody will venture today to assert that there could be a science of war. It would be as absurd as a science of poetry, of painting, or of music."

In the opposing camp are men like Clausewitz and most modern military leaders who believe that there are principles which can be discovered.

Jomini believed:

"The fundamental principles upon which rest all good combinations of war have always existed, and to them all others should be referred for the purpose of arriving at their respective merits. These principles are unchangeable; they are independent of the arms employed, of times, and of places."

Napoleon advised:

"Peruse again and again the campaigns of Alexander, Hannibal, Caesar, Gustavus Adolphus, Turenne, Eugene, and Frederick. Model yourself upon them. This is the only means of becoming a great captain, and of acquiring the secret of the art of war. Your own genius will be enlightened by this study, and you will learn to reject all maxims foreign to the principles of these great commanders."

From the work of this latter group has developed the principles of war which are recognized by the various nations. From ancient China have come the 13 principles of Sun Tsu. From Napoleon's writings have been derived 115 maxims. The German Von Clausewitz gives us three, seven, or more principles, depending on how one interprets the word. The French General Foch listed four principles at the turn of the century, ending his list with a significant "et cetera." The British General Fuller deduced 6 principles in a work of 1909; later he expanded this number, first to 8, then to 11, and finally settled on 9. From these writers and others, the national principles shown in Figure 4 were derived.

The differences in the number of principles accepted by the various nations are based, not so much on doctrinal and organizational differences, as they are on the desired degree of emphasis to be given certain concepts.

CURRENT PRINCIPLES OF WAR

<u>United States</u>	<u>British</u>	<u>French</u>	<u>Soviet</u>
Objective	Selection and Maintenance of the Aim	_____	Advance and Consolidation
Simplicity	_____	_____	_____
Unity of Command	Co-operation	_____	Combined Arms
Offensive	Offensive Action	_____	Offensive
Maneuver	Flexibility	Liberty of Action	Maneuver and Initiative
Mass	Concentration of Force	Concentration of Effort	Concentration
Economy of Force	Economy of Effort	_____	Economy of Force
Surprise	Surprise	Surprise	Surprise and Deception
Security	Security	_____	Adequate Reserves
_____	Maintenance of Morale	_____	Morale
_____	Administration	_____	_____
_____	_____	_____	Annihilation

Figure 4

No one will say that British plans and orders are likely to be complicated because they have ignored the principle of simplicity. Similarly, tactics of the French are not defective because they profess to find only 3 principles rather than the 9 United States or 10 British principles. All of the concepts embodied in the principles are taught in all armies, but with differences in interpretation and emphasis.

The United States official list of principles is a product of the twentieth century. Our Field Service Regulations of 1904 are reported to have contained the following statement--but not a list of principles:

"While the fundamental principles of war are neither very numerous nor complex, their application may be difficult and must not be limited by set rules. Departure from prescribed methods is at times necessary. A thorough knowledge of the principles of war and their application enables the leader to decide when such departure should be made and to determine what methods should bring success."

Training Regulations 10-5 of 1921 contains what is apparently the first official list of principles, but the publication gave the names only without explanation and the list was rescinded in 1928. The Field Service Regulations of 1923 treated the principles without naming them. Its successor, Field Manual 100-5, Field Service Regulations, Operations, continued this approach until our present edition of 1954 which both names and discusses the principles.

Although our Army was apparently late in its official acceptance of the principles, they were taught much earlier, as evidenced by General Pershing's statement:

"But the principles of warfare as I learned them at West Point remain unchanged. They were verified by my experience in our Indian wars, and also during the campaign against the Spaniards in Cuba. I applied them in the Philippines and observed their application in Manchuria during the Russo-Japanese War."

In the British Army a very similar procedure took place. General Fuller has related how, in 1911, he read in the British Army Field Service Regulations that "the fundamental principles of war are neither very numerous nor in themselves very abstruse..."; but that he searched for them in vain. Spurred by the need for valid principles, he finally evolved nine principles; in 1923, he realized the satisfaction of seeing most of them printed in a service manual. The original British principles remained substantially unchanged until after World War II when two others, Administration

and Maintenance of Morale, were added, due, one may guess, to the influence of Field Marshal Montgomery.

Within the United States Army, the principles of war have been regarded as basic truths, applicable to all situations, intelligent application of which will aid success. Although apparent conflicts between principles are recognized--mass and security for example--we teach that a principle should be violated or disregarded only after mature consideration of all factors involved. The principles have never been stated as laws of cause and effect. They represent, in fact, certain durable, proved concepts which, in the opinion of the times, deserve emphasis over all other concepts. Interpretation of the concepts has varied, of course, and will doubtlessly vary in the future.

CRITICISM OF THE PRINCIPLES

Captain Frank L. Johnson, United States Navy, wrote, "The mere mention of the term 'principles of war' brings out the semantic beast in certain individuals."

As soon as the principles were published, an argument began which has continued until the present day. For every article in a service journal which expounded the official line, there appeared another article attacking one or more of the principles. Most early objections were based on the grounds that the principles were a mere list of nouns or noun substantives which could be interpreted in many ways. Some wanted to expand the list. Others--appealing to the dictionaries--wished to discard all which were not basic to every situation. As an example, Brigadier General Charles M. Bundel--former Commandant of the Command and General Staff School--could find only five basic principles--offensive, simplicity, objective, superiority, and security. The others he thought valid as doctrine but not as principles.

Later critics--notably the Naval War College and Colonel E. S. Johnston, former instructor and librarian at Fort Leavenworth--attacked the principles on firmer ground. While not denying their value as concepts, they claimed the principles were not stated properly--that is, that relationship between cause and effect was not shown; that doctrine and method was being confused with principle; and that the label "principle" had misled some commanders to believe that these concepts were basic rules to be applied to every situation. Thus, it was said, faulty rules of actions have been derived from concepts designed to replace such faulty rules.

Colonel Johnston cites the following from World War I on the confusion of principle and method:

"General Harbord says that to induce acceptance of the American original idea of unity of control of supply, our General Headquarters had likened it to unity of command. Foch then seized upon this opening to press for the project--not so bad for the French, but certainly undesirable for us--of complete unity of interallied supply. 'It was a bit awkward, Harbord tells us, 'for General Pershing to urge the principles and the limitations at the same time.'--It was awkward, no doubt of that. It was awkward because our General Headquarters had mistaken a method for a principle."

In a search for true principles, these later writers were led to expand on the old adage, "It depends on the situation," and to produce such statements of causal relationships as appear in the Naval War College's Fundamental Principle of War:

"The attainment of a military objective (the creation or maintenance of a favorable military situation) depends on effective operations involving the salient features of

- (1) effective action with relation to correct physical objectives;
- (2) projection of action from advantageous relative positions;
- (3) proper apportionment of fighting strength; and
- (4) ensurance of adequate freedom of action:

each fulfilling the requirement of

(a) suitability, as determined by the factor of the appropriate effect desired;

(b) feasibility, by reason of relative fighting strength as determined by the factors of the means available and opposed, influenced by the factor of the characteristics of the theater of operation; and

(c) acceptability, as determined by the factor of the consequences as to costs, which factors are in turn dependent on each other."

Statements of this type have a definite value in that they constantly refer one to the controlling conditions of the current situation. Whether or not they will ever satisfy man's inherent thirst for set rules of action is questionable. One feels that man may make an equivalent error by applying

yesterday's conditions in lieu of tomorrow's. Still, causal principles are in accord with "the Natural Mental Process" described earlier. Their further use should be studied by our service schools.

Their first application could be to the solution of two problems incident to the commander's estimate of the situation--the determination of a suitable mission, and the formulation of courses of action to be considered at length. In this connection, the following propositions apply.

1. The determination of a suitable objective depends upon the
 - a. suitability of the objective in light of the future mission of the command;
 - b. feasibility of the objective as determined by the means available and opposed, the time available, and the condition of the theater; and
 - c. acceptability of the costs involved.
2. The selection of a suitable course of action for accomplishment of an objective depends upon the
 - a. suitability of the course of action with regard to the objective and the future mission of the command;
 - b. feasibility of the course of action, as determined by the means available and opposed, the time available, and the conditions of the theater; and
 - c. acceptability of the costs involved.

There is nothing new here, of course. Our first proposition merely states that an objective must further the mission of the command, must be capable of achievement in the time available, and must be acceptable as to costs. This last statement is correct and the language is familiar to all; so, why change it? One must admit there is no great necessity. The advantage of the proposition, however, is that it points out the relationships of the factors involved and thereby contributes to a frame of mind--a method of thinking--which is a distinct asset to the service officer.

In the remaining pages, the author proposes to examine our principles of war and determine their application to the solution of military problems.

OBJECTIVE

"The ultimate objective of all military operations is the destruction of the enemy's armed forces and his will to fight. Selection of intermediate objectives whose attainment contributes most decisively and quickly to the accomplishment of the ultimate objective . . . must be based on . . . complete knowledge of the enemy and theater of operations. . . ." Field Manual 100-5, Field Service Regulations, Operations.

The term "objective" has two distinct meanings. In the larger sense, it is the "effect desired," or the creation of a favorable military situation. This we usually term the mission. In the first sense, the objective is common to all military operations. Applied to offensive operations, it may be the seizure of certain terrain or the destruction of an enemy force; in defensive operations, the objective may be to deny an area or facility to the enemy, or it may be simply to maintain the integrity of a certain force. The proper sequence of planning is to first determine the ultimate mission. Based upon this, one determines favorable military situations which favor accomplishment of the ultimate mission. These situations then become intermediate missions.

In the second sense, in tactics, the creation of a favorable military situation can often best be expressed in terms of physical objectives for an attacking force. This is the second, and more usual, meaning of the term.

The one principle of war which is controlling is the objective.

In solving military problems, the first step is to establish the objective or mission. An improper objective must inevitably lead to wasted resources--if not to failure. In arriving at his objective, the commander must bring into play all of his knowledge and reasoning power. This heavy responsibility grows with the degree of discretion permitted, but it is not inconsiderable even when a physical objective has been assigned by the higher commander. Nearly always, there will be missions to be deduced or implied, and intermediate objectives to be chosen.

To aid us in selecting physical objectives, certain criteria are laid down in our field manuals. We say that a proper objective must be attainable in the time and space limits imposed and should facilitate future operations; the threat of its capture should compel the enemy to evacuate his position or risk destruction therein; it should produce a convergence of effort; and it must be easily identified.

We have no analogous criteria in our field manuals regarding the selection of an objective in the sense of the mission, but certain guides can be determined. Earlier, we stated that a suitable objective or mission of the command will be capable of achievement in the time available, and will be acceptable as to costs. Other desirable characteristics could be deduced, but these are the basic ones which must be present in all cases.

We are striving to produce leaders who use their reasoning powers rather than rely on set rules of action. The danger in this principle--and the others as well--is that the unwary may convert it into an invariable rule of action or slogan, such as "seek out and destroy the enemy's main force." Views such as this were at least partially responsible for the bloody and indecisive fighting during most of World War I. Dr. Bernard Brodie cites the more recent example of the United States Third Fleet at Leyte Gulf. Following the United States landings on Leyte, the Japanese initiated a naval counterattack involving two task forces, comprised mainly of battleships and cruisers, which were to encircle the island from the east and converge on the landing areas. A small decoy force of carriers approached from the north and west. The United States naval commander decided to steam north and attack the carriers because of the then current concept that "the enemy's main force is where his carriers are."

Dr. Brodie then said:

"But the question asked was, 'Where are the enemy's carriers? That is where his main force must be.' I submit that this was true for the preceding 2 years of the war, but at the time of Leyte Gulf it was no longer true, and I submit also that the intelligence was available to the fleet which should have indicated that it was no longer true In that battle the enemy's main force comprised in fact his battleships. That would have been clear except for the existence of the slogan."

THE OFFENSIVE

"Through offensive action, a commander preserves his freedom of action and imposes his will on the enemy. The selection by the commander of the right time and place for offensive action is a decisive factor in the success of the operation. A defensive attitude may be forced on a commander by many situations; but . . . should be deliberately adopted only as a temporary expedient . . . "--Field Manual 100-5, Field Service Regulations, Operations.

Our doctrine of the offensive is as basic as any concept in the United States Army; for only through offensive action can we ultimately destroy the enemy's armed forces. Only through the offensive can we retain the initiative. Therefore, we are taught that even when forced to assume the defensive we should conduct an aggressive or offensive defense.

The basic nature of this principle, however, has misled many commanders who elevated it to the "rule of war" by insisting on the attack at all times. Marshal Foch, whose early writings on this principle had much influence in World War I, had the following to say in his postwar Memoirs:

"...the doctrine of the offensive...tended to impose an invariable rule leading too often to tactics that were blind and brutal and for that very reason dangerous. It also produced a strategy that was bare and uniform, easily sterile, unproductive of results, and costly."

This degeneration of a sound concept into a faulty rule of action is a very human failing. Man seeks invariable rules of action and is immensely comforted when he thinks he has discovered one. No bitterer condemnation of a commander of this type has been written than the following words by General Fuller in speaking of a high British commander during World War I:

"His (Haig's) theory of fighting was as simple as General U. S. Grant's, and he never once budged from it, whilst Grant did. From history he (Haig) had learned that battles passed through the following phases: the maneuver for position, the first clash of battle, the wearing-out fight of varying duration, and the eventual decisive blow, which would give victory.

It had been so and, consequently, it must be so in all circumstances and irrespective of changes in armaments. As the decisive blow in former wars had been delivered by cavalry, cavalry remained the decisive arm; consequently, they figured in all his battles, irrespective of mud, fire, and wire. As this blow had to be preceded by the wearing-out fight, which hitherto had been carried out by infantry and artillery, this must continue; for of the new arms Haig could grasp nothing, because of them history could tell him nothing. His creed was that firm hold be kept of first principles, and that a plan, when once it had been accepted, must be adhered to and pursued with determination. This meant that, whatever the strategy, the final victory could come only when, after the first clash of battle, the

wearing-out fight, of whatsoever character it might be, had exhausted and reduced the enemy's power of resistance and his will to fight.' So it happened that on 28 June 1917, he is reported to have said, 'that if the fighting was kept up at its present intensity for 6 months, Germany would be at the end of her available manpower'."

The solution to the problem, of course, is not to discard our valid principles and concepts but to state them so that the relationship of cause and effect is evident, and to educate our leaders to rely on their powers of reason rather than "invariable" rules of action.

The ultimate value of the offensive is that it is the only reliable way to break the enemy's will to fight--with the possible exception of strictly limited conflicts. The everyday results of successful offensive action are initiative and high morale. General Patton thought so highly of these that he once forbade dissemination below general officer grade of an order to assume the defensive.

In solving military problems, the action taken must be consistent with the ultimate destruction through offensive action of the enemy's will to fight. If the correct present decision is to assume the defensive, the plan adopted must provide for suitable offensive action such as raids, and limited objective attacks and counterattacks.

MASS

"Mass or the concentration of superior forces, on the ground, at sea, and in the air, at the decisive place and time, and their employment in a decisive direction, creates the conditions essential to victory. --" Field Manual 100-5, Field Service Regulations, Operations.

The concept of mass is certainly basic. Mass or concentration of forces is recognized as a principle of war by most world powers--with the notable exception of France.

The idea of mass has given birth to many familiar slogans and quotations--all of which are not wise: "God is on the side of the biggest battals." "Git thar fustest with themostest." "Fire kills."

Mass, like the other principles of war, must be applied with caution. Above all, the equation of mass and mere numbers must be avoided lest we become involved in another killing match between huge armies such as occurred in World War I. Compare the Communist reliance on massed

manpower and their callous acceptance of huge losses. Although numerical superiority is often desirable, there are other factors which may be equally, or more, important in obtaining mass--armor, artillery, air, the state of training, and morale, to mention but a few. In solving military problems, we must consider the principle of mass at all times. In the formulation of courses of action, mass for the main effort is usually stated in general terms only. In the analysis of opposing courses of action, the degree and nature of mass, both that necessary and that available, can be visualized. Finally, details are developed in the complete plan to ensure the desired mass at all foreseeable stages of the operation.

Mass is not achieved for its own sake. For a modern example, let us return to Dr. Brodie's comments on the Battle of Leyte Gulf. The American naval commander tells us that after discovering the three Japanese task forces moving toward Leyte, he formulated three courses of action: to remain where he was; to attack the carriers to the north with all his force; or to divide his force, keeping part in the area and sending part to attack the carriers. He decided against splitting his force because this would conflict with the "principle of concentration of force." Dr. Brodie has the following to say concerning this reasoning:

"The purpose of the principle of concentration of force is to suggest that one should so allocate one's forces that one can hope to be superior to the enemy somewhere, preferably in the most important place, or at least minimize one's inferiority in the decisive place. I submit that the commander of the Third Fleet had forces so overwhelmingly superior to those of the enemy that he could have divided his forces between San Bernardino Strait and the north and have remained overwhelmingly superior locally to each enemy force. An when you are overwhelmingly superior--how much more superior do you want to get?"

ECONOMY OF FORCE

"The principle of economy of force is a corollary to the principle of mass. In order to concentrate superior combat strength in one place, economy of force must be exercised in other places."--Field Manual 100-5, Field Service Regulations, Operations.

Here the dependence of this principle of war is recognized. Properly speaking, it is a method of achieving mass.

The term economy of force has wide acceptance among armies of the world but is not always interpreted the same way. One influential writer

has raised this principle to the status of "the law of war." To the British and Canadian Armies, economy of force implies, "a balanced employment of forces and a judicious expenditure of all resources with the objective of achieving an effective concentration at the decisive time and place." Here economy is interpreted in the nineteenth century sense of "utilizing all resources" rather than in the twentieth century sense of "to economize; to save."

The inexactness inherent in the use of single nouns or noun substantives to signify concepts or principles is well illustrated.

In the broad sense, economy of force pertains to the proper apportionment of forces and resources between main and secondary efforts and reserves. Weighting the main effort is naturally stressed in our Army schools. At this point, it might be well to show that secondary efforts must also be weighted at least to the extent necessary to enable them to accomplish their missions. Secondary efforts are not only desirable--they are required. "Every attack must have a main and secondary effort."

In solving military problems then, we must clearly state the minimum objectives to be attained by the secondary effort and to allot the minimum forces required.

Any remaining resources are used to strengthen, in priority, the main and secondary efforts. The question is, where can we afford to economize, and to what degree?

UNITY OF COMMAND

"Unity of command obtains that unity of effort which is essential to the decisive application of the full combat power of the available forces."--Field Manual 100-5, Field Service Regulations, Operations.

Here, of course, unity of effort--or cooperation in the British Army and United States Air Force--is the desired end or principle, and unity of command is but a means to that end. Certainly, unity of command is not fundamental to all situations. To bear out this statement we need cite only two examples: the normal relationship between a regimental commander and his supporting artillery, and the relationship between a field army commander and the supporting tactical air force. One may be tempted to reply that unity of command in these situations is exercised by the division commander and the theater commander, respectively. If so, one also must admit that the principle is invalid in some cases and at some echelons.

On the other hand, unity of effort, or cooperation, is highly desirable and should be fundamental in every situation. History affords us many instances of opportunities lost because unity of effort was not achieved. Two examples which readily come to mind are Stuart's cavalry at Gettysburg and the lack--until 1918--of an effective high command among the Allies in World War I. World War II will doubtlessly furnish other examples. One potentially bad situation was that described by General H. H. Arnold regarding conflicting zones and interests between theaters of operations in the Pacific and the Far East.

Unity of effort depends on a number of factors.

First of all, various units and services must be working toward a common goal if complete cooperation is to be achieved. There must be no discordant jealousy or rivalry. Common training and equipment--especially signal communications means--are also vital to full cooperation.

Cooperation between allies--which has become more and more important--introduces still other factors such as national aims, divergent customs, and language difficulties. In dealing with allies one cannot do better than remember that "allies are at times difficult to deal with; when this occurs it is well to remind oneself that one is also an ally.

The degree of unity of effort achieved by a plan of action is a test of the validity of the plan. Therefore, unity of effort can be used as an aid in solving military problems. The statement of the mission, the selection of physical objectives, and the selection of possible courses of action all effect the cooperation to be achieved. In general, it can be stated that the maximum cooperation should be developed in the execution of a plan, but that the degree of inherent unity of effort is not the dominant factor in deciding on one of several courses of action. On the other hand, the ability of the command to achieve the unity of effort required in a particular course of action is a dominant factor in the retention or rejection of that course of action. In this last statement, we can see a close relationship to the application of surprise and simplicity. In this sense, the test for required unity of effort is a feasibility test.

For example, we may consider an attack across open terrain. As to time of attack, two general courses of action are possible: day and night. A night attack is a complex operation requiring careful coordination and teamwork among all elements. In other words, success in a night attack depends to a considerable degree on the ability of the force to achieve the required unity of effort. The ability of the command to accomplish the required cooperation would determine whether the night attack would be

seriously considered.

In solving military problems then, we can ask the following questions.

1. Does the formulation of the mission allow for full development of cooperation?

2. Is the command capable of achieving the degree of cooperation required by the proposed courses of action?

If the answer to either question is negative, then there has been an error.

MANEUVER

"Maneuver in itself can produce no decisive results, but if properly employed it makes decisive results possible through the application of the principles of the offensive, mass, economy of force, and surprise."--Field Manual 100-5, Field Service Regulations, Operations.

This quotation shows that maneuver--like unity of command and economy of force--is properly a method of achieving combat superiority. It is, however, an important concept which deserves emphasis. Maneuver is, of course, not to be sought for its own sake. Like all the other principles, except the objective and possibly security, maneuver may not be applicable to every occasion.

Maneuver is movement to place troops and fire at a more advantageous position with respect to the enemy. The comparable British principle, flexibility, is somewhat more inclusive than the United States term, maneuver. What is meant is not only maneuver of tactical units, but such considerations as mobility of mind inculcated during training, and mobility of supply.

Although it is hard to imagine that anyone would turn this principle into an end to be sought, the United States Naval War College has seen fit to warn: "Avoidance of movement (maneuver) is frequently the correct decision, because movement, if it offers no advantages, is scarcely justifiable even if it entails no material loss."

This principle has considerable application in the statement of possible courses of action and in development of the plan of action. The following

questions are useful in selecting missions, objectives, and courses of action.

1. Is the command capable of achieving the required degree of maneuver? If not, the objective or course of action is infeasible.

2. Is the command's capacity of maneuver used to best advantage?

3. What is the degree of maneuver for the command relative to that for the enemy initially and throughout the action?

SURPRISE

"Surprise must be sought throughout the action by every means and by every echelon of command. Surprise may be produced by measures which deny information to the enemy or deceive him . . . ; by variation in the means and methods employed in combat; by rapidity and power of execution; and by the utilization of terrain which appears to impose great difficulties."-- Field Manual 100-5, Field Service Regulations, Operations.

Surprise, like many of our principles, is not sought in itself. In reality it is but a means or method for achieving combat superiority.

The first sentence of the quotation is representative of the more dogmatic statements which still appear in our field manuals. If by the phrase "must be sought" we mean "must be attempted" or "must be gained," then the statement is not taken literally and need not be. While surprise is usually desirable--any may even be essential--many measures--and especially active deceptive measures--require an expenditure of effort, the effect of which, on the main effort, must be weighed carefully. Again, a degree of surprise may be deliberately forfeited--as when we announce to the enemy that certain targets will be attacked, or when we disclose our own order of battle through the press.

In the estimate of the situation, we must ask ourselves four general questions. Are the courses of action stated in a manner to allow development of surprise? What degree of surprise is necessary to success in each course of action? What degree of surprise is likely in each course of action? What will be the effect of this surprise, or the lack of it? Detailed measures for surprise, of course, will be developed after the decision is made.

SIMPLICITY

"Plans should be as simple and direct as the attainment of the objective will permit. Simplicity of plans must be emphasized, for in operations even the most simple plan is usually difficult to execute."--Field Manual 100-5, Field Service Regulations, Operations.

Simplicity in a plan or order has been interpreted in two very difference ways: simplicity of statement of the plan or order and simplicity of the operation involved.

As an example of the first interpretation in which simplicity is synonymous with clarity, we may refer to General Eisenhower's directive:

"You will enter the Continent of Europe, and, in conjunction with the other United Nations, undertake operations aimed at the heart of Germany and the destruction of her Armed Forces."

This directive has been cited as a model of simplicity. Certainly it is a classic of its kind: brief, concise, and clear; but, one is entitled to wonder how simple it really is. Few will doubt that the concept involved, the conquest of Western Europe, entailed some of the most complicated operations of all times.

The second interpretation, simplicity of operation, is the more usual, but is vastly more difficult to attain.

Our 1923 Field Service Regulations state: "The task assigned to any unit must not involve a complicated maneuver. Simple and direct plans and methods are alone practicable in war."

In his High Command in War, Field Marshal Montgomery stated:

"The first requirement of a simple plan is that each component part of a force should have its own task to carry out, and its operations should not be dependent on the success of other formations or units."

The years of experience reflected in our manuals tell us that simple plans and simple maneuvers are usually best. This must be good advice, and is not to be discarded lightly. But the application of the principle of simplicity is not easy.

This is so primarily because we do not seek simplicity in itself. Instead, we seek what we believe to be an effective means to a desired end.

If the means we devise are complicated, we may sometimes discard them; but more often, we attack the complexity itself and attempt to reduce it by training and through better organization and equipment. Thus, our concept of simplicity includes the notion of acceptable complexity. With this in mind, we may expand our principle by adding:

"Complexities should be introduced into military operations only after careful consideration of the additional results to be obtained, the ability of the force to overcome the complexity in the time available, the cost, and the risk involved."

By complexity, we mean such matters as maneuver, movement, organization, coordination, and timing which are relatively difficult and which may require special training, equipment, and control. Certain operations such as the raid, the night attack, and chemical warfare can be very complex and difficult. Newer concepts such as amphibious, airborne, and atomic warfare are usually still more complex.

In the estimate of the situation, we can apply this principle by eliminating those courses of action whose complexities cannot be overcome, and by removing obviously unnecessary complexities in other courses of action.

In our expanded principle of simplicity, we have a practical statement which refers us constantly to the determinants of the situation. It is compatible with our quotation from Field Manual 100-5, but is definitely contrary to the old Field Service Regulations which stated that plans must not involve a complicated maneuver. Strict adherence to the latter would induce sterility of thought and would have ruled out many developments such as airborne and amphibious warfare.

The evident change in interpretation of simplicity in the last 15 years throws considerable light on the nature of our principles.

SECURITY

"Adequate security against surprise requires a correct estimate of enemy capabilities, resultant security measures, effective reconnaissance, any readiness for action."--Field Manual 100-5, Field Service Regulations, Operations.

Security is recognized as a principle of war by all major armies except the French.

The quotation above points out only one aspect of security. Not only must the commander protect against surprise, he must also guard against known enemy capabilities. In the offense, security measures are taken to retain the initiative despite enemy counterstrokes. Active security measures include secondary attacks and the employment of reconnaissance forces and reserves. Passive security measures are designed to limit enemy knowledge of our activities and to minimize damage from enemy attack.

The commander must not take counsel of his fears, however, lest he develop a defensive attitude. "Bold action is essential to success in war."

In the estimate of the situation, the problem of security arises where our own courses of action are analyzed with respect to enemy capabilities. Then the general nature and timing of each threat is visualized. Detailed planning comes later.

One of the more interesting problems concerns risk, the obverse of security. The solution, of course, depends on how much one can afford to lose. Earlier, we stated that the suitability of any objective or course of action depends, among other things, upon the degree of risk involved.

SUMMARY

In this article it has been suggested that the principles of war were developed through man's instinctive search for valid rules or guides. The nine principles of the United States Army and those of other nations represent those proved concepts or points of doctrine which, in the opinion of the times, deserve more emphasis than all other equally valid concepts or doctrines. A study of the principles has made it obvious that their statement and even their number has undergone steady change and refinement.

The same desire to minimize error in military decisions which produced our principles of war, has also produced our estimate of the situation which is a standard sequence for reaching tactical decisions. The estimate directs one's attention to the influences of the factors of the situation or the relationship between cause and effect. In other sciences, these relationships or laws are termed principles, but not so in the military where "principle" means "doctrine." Although the war of words has not yet terminated, the following points have emerged in the opinion of the author.

1. Our principles of war are valid concepts and doctrines.
2. Like all doctrine, principles of war are subject to change.
3. There is a requirement for fundamentals stated in the scientific form of cause and effect.

DEVELOPMENT OF THE UNITED STATES PRINCIPLES OF WAR

TR 10-5 (1921)	FSR* (1923)	FM 100-5, Tentative * (1939)	FM 100-5* (1944)	FM 100-5 (1949)
Principles of War	General Principles of Combat	General Principles for Conduct of War	Doctrines of Combat	Principles of War
Objective	Objective	Objective	Objective	Objective
Offensive	Offensive	Offensive (Mobility)	Offensive	Offensive
Mass	Concentra- tion of Superior Forces	Concentration of Superior Forces (Economy)	Concentra- tion of Superior Forces	Mass
Economy of Force	Economy of Force	_____	_____	Economy of Force
Surprise	Surprise	Surprise	Surprise	Surprise
Simplicity	Simplicity	Simplicity	Simplicity	Simplicity
Security	Security	Security	Security	Security
Movement	_____	_____	_____	Maneuver
Cooperation	_____	Unity of Effort	Unity of Command	Unity of Command
_____	Quality** Fire Superiority	_____	Quality**	_____

NOTES:

*Where the principles are not formally titled, the key word or major concept of each numbered paragraph has been chosen. Lesser included concepts are placed in parentheses.

** By "Quality" is meant "greater mobility, higher morale, and better leadership." FSR, 1923, paragraph 381.

Figure 5

The following article is reprinted from The Military Review, February 1956. The views expressed in this article are the author's, Major James A. Huston, and not necessarily those of the Department of the Army or the U. S. Army Civil Affairs School.

RE-EXAMINE THE PRINCIPLES OF WAR

It has become commonplace to introduce any discussion of the principles of war by saying that weapons and tactics change, but the principles of war do not change. The principles of war are eternal and immutable. They seem to have achieved the status of a dogmatic creed, to be challenged only at the risk of raising accusations of heresy. As such they have been reduced to a catechism to be accepted on faith by all young officers. By so doing we tend to stereotype the application of the principles of war and thus repress the ability to apply bold imagination to the interpretation of these principles.

It is undeniable that the principles of war--largely the principles of Clausewitz--have a great deal of truth in them. Some of them seem obvious truisms, but others are open to serious question. Not only has airborne and atomic warfare made some of those concepts obsolete, but many exceptions are to be found to them throughout the history of warfare. Again, in the ordinary classroom presentation of the principles of war, examples are marshalled to illustrate how battles have been won with the correct application of the stated principles, and lost through the failure to apply them. Exceptions are carefully ignored. And the exceptions are not the kind that prove the rule, but sometimes disprove it. Unfortunately officers indoctrinated and imbued with such unexceptionable principles are likely to fail to search for the exceptions which in a particular situation may be decisive.

While it would be agreed that military operations must have an objective, the nature of that objective must be considered carefully. In explanation of this first principle of war, we are told that: The ultimate objective of all military operations is the destruction of the enemy's armed forces and his will to fight.

OBJECTIVE

The implication is that the primary objective is the enemy armed forces. Yet at the end of World War II we saw Japan surrender while a Japanese force of 2 million men and 9,000 aircraft remained in being to defend the home islands.

American doctrine has tended to conform with what Liddell Hart calls the "Napoleonic fallacy" that wars are to be won only by destroying the enemy's army, not by occupying his capital or other major cities. Our objective is the enemy's army; we are not interested in real estate. Nevertheless the emotional and economic attachments of a nation for a particular city can be so great that its loss to the enemy means the loss of the war. This has been true of Paris--whenever Paris has fallen France has fallen. When Napoleon left Paris lightly guarded in 1814 in order to pursue the enemy in eastern France, the allies made straight for Paris, and a week after they entered the capital Napoleon abdicated. Throughout World War I it generally was assumed that the German capture of Paris would mean the loss of the war for the Allies. In World War II the French sued for an armistice 2 days after the fall of their capital.

It is true that victory may be won by destroying the enemy's armed forces. But it also is nonetheless true that sometimes victory may be won without destroying those forces. Many Americans have come to equate victory with destruction, and they hold to the destructive principle of unconditional surrender. Again, we are told that "in war there is no substitute for victory," apparently meaning complete destruction of the enemy. Perhaps it is enough for a soldier, confining himself strictly to military considerations, to hold victory as his objective. When he ascends to the place to urge high national policies, however, he must look beyond victory to the more basic objectives which brought his nation into war. The ultimate objective of war is not simply victory, but the wellbeing of the nation. The objective for the nation is not the destruction of the enemy, but the protection of its own security and the restoration of justice, freedom, and peace. Failure to look beyond the immediate destruction of the enemy to the political consequences is the reason Americans have found themselves winning the war, and then losing the peace. Was victory ever more complete than in World War II? Did it bring security and peace?

Because the enemy forces remained intact, many Americans have expressed the opinion that we lost the conflict in Korea. If victory meant the conquest of all North Korea and the destruction of the Communist Chinese armies, then truly it was not attained. But what objective did the United States have in Korea? It was to stop the Communist aggression against

South Korea. That objective was achieved. Holding ourselves to the original objective, clearly the United States and her United Nations allies won a victory in Korea. In war a stalemate is a victory for the defensive.

"The ultimate objective of all military operations" might better be stated as being the destruction of the enemy's capability or his will to fight.

SIMPLICITY

Simplicity is a principle which may offer some value most of the time, but even it is not to be accepted unquestioningly for all occasions. If everyone had insisted on following the rule of simplicity, there probably would have been no airborne operations during World War II. It may be argued that airborne attacks made no decisive contributions to American battle victories. But if they did contribute something to the successes in Sicily, Normandy, Holland, or Corregidor, it was not because they offered the simplest of the possible courses of action. On the contrary they were highly complex undertakings.

Again, the simple plan may be too obvious to the enemy. It was "impossible" for the Japanese to move all the way down the Malay Peninsula to Singapore--so of course that is the very route they used.

It is said that the final test of a plan is its execution. And so it is for that particular plan, but its success does not rule out all the alternative plans which might have been even more successful. Too frequently we tend to justify our military doctrine with the unassailable statement, "Well, we won the war, didn't we?" when it is quite conceivable that with members and industrial resources far surpassing those of the Allies, the Germans might have been fully as successful with their doctrines of airpower, for instance, as were the British and Americans with theirs.

UNITY OF COMMAND

In football, simple offensive systems frequently have been successful. But with the right personnel, highly complex offensive systems have at times been spectacularly successful. So may it be at times too with offensive systems in battle.

Unity of command would appear to be one of those truisms obvious to everyone were it not violated with such frequency. In spite of unified commands in all the overseas theaters, we seem unable to develop an effective unified command for the defense of the United States. Since World War II the Air Force has been moving away from the principle of unity of command

whenever it means assigning combat elements to the control of an officer of another service. There still is no unified command over aircraft and paratroops in airborne operations. Apparently, the Air Force has come to accept the idea of unity of command for air defense, with Army antiaircraft units under an Air Force commander, but air officers show great reluctance to see tactical air units put under command of the ground forces commander whom they are supposed to be helping with close support missions.

Even to this principle there may be justifiable exceptions in cases where there is no officer present having knowledge of the capabilities and limitations of elements of services other than his own which are to cooperate in some particular situation. In spite of its usual weaknesses, cooperation may be more effective sometimes than unified command. Each commander of cooperating forces may feel a certain sense of responsibility of which he would be relieved were the sole responsibility placed on a single pair of shoulders.

THE OFFENSIVE

Perhaps the most deeply imbued of all principles of war, at least as far as American officers are concerned, is the principle of the offensive. It is said that a decision can be won only through attack. The only excuse for assuming the defensive: . . . is to gain time pending the development of more favorable conditions for undertaking the offensive, or to economize forces on one front for the purpose of concentrating superior forces for a decisive action elsewhere.

To imply that defensive actions never have been decisive, but at best have only set the stage for decisive counteroffensives, ignores the record of history. Of the Fifteen Decisive Battles of the World on which Sir Edward Creasy wrote, at least 10 were defensive victories in their strategic or tactical aspects, or in both. While it is true that there were local attacks on the part of the victors, in varying degrees, at Marathon, at the defeat of the Athenians at Syracuse, the defeat of Hasdrubal at the Metaurus, the defeat of Varus and the Romans by the Germans, the checking of Attila and the Huns by Romans and Visigoths at Chalons, in Peter the Great's victory over Charles XII of Sweden at Pultowa, and at Saratoga, each of those engagements represented a decisive repulse of an invading enemy. After the defeat of the Athenians, the Syracusans had no thought of launching an invasion of Athens to make the victory decisive. Peter did not have to invade Sweden to save his country from invasion after Pultowa. Charles Martel gained a decisive victory when his defense stopped the Moors at Tours; the defeat of the Spanish Armada was essentially a decisive victory for the defense; and so too was the

successful defense of the French Revolutionary Army against the Prussians at Valmy. Gettysburg also was a decisive defensive victory (of course it is true that it took offensive action to bring the Civil War to a successful termination for the North).

"SPIRIT"

The "offensive spirit" virgually ruined the French Army in World War I. One of the advantages of the offensive is said to be the higher morale which it inspires in the troops. After the succession of costly, useless French assaults against the German defenses in 1915-17, however, the offensive inspired mutiny in the troops rather than spirit. Indeed, a command in which the offensive idea has been oversold may actually be inviting low morale on the part of its soldiers when forced to go into a "temporary" defensive situation. The lowering of morale may come, not simply because the unit no longer is advancing and the doughboy may stay in the same place for a few days, but because men have been convinced that victory and success can come only with the offensive; therefore, the assumption of the defensive must mean that some catastrophe is impending or at least that victory and success have been postponed. This feeling was evident among men of the Third Army when they had to revert to the defensive in Lorraine in September 1944.

Moreover an enemy known to believe that only attack can win puts himself at a disadvantage against a wily and more broadminded foe who will then lay his own plans accordingly.

MASS

The principle of mass requires further consideration. Again it is essential to leave the door open for many exceptions. Unquestioning acceptance of this principle may be worse than having no principle at all. Even in discussing old, traditional ways of warfare some care is necessary on this point.

It may be fatal, for instance, to concentrate inferior forces before a superior enemy. Washington was anxious to avoid the concentration of all the small American forces in Charleston, South Carolina, when the British threatened that key city in 1780 lest the loss of the place might involve the loss of all his forces. The concentration of forces not strong enough to achieve the intended purpose may be fatal.

In other situations it is necessary to avoid concentrations of troops in places where supply and transportation facilities will be overtaxes. In

1758 General James Abercrombie delayed his attack against Canada by way of Lake George and Lake Champlain until 20,000 colonial troops could be added to his force at Fort Edward. Further delays were necessary to get up the supplies, horses, wagons, and boats necessary to transport the supplies for supporting this bigger force. He thus lost the advantage of the earlier spring which would have permitted him to be moving northward while the French remained bound in Montreal. In this case he might have had greater success had he been more determined to move quickly, and less concerned about massing his forces.

The winters when Washington's miserable army suffered most for want of provisions and clothing were those when it was concentrated at Valley Forge and then at Morristown. The situation was quite different in the winter of 1778-79 when the infantry was divided between camps at Danbury, Connecticut, and West Point, New York, and the cavalry was spread out all the way from Durham, Connecticut, to Winchester, Virginia, and Middlebrook, New Jersey, with the size of each garrison determined at least in part by the availability of supplies.

It frequently may be the case too that scarcity of supply and transportation facilities will make advisable a division of forces for offensive operations. In Amherst's masterful campaign against Montreal in 1760, British forces moved by three widely separated routes--down the Saint Lawrence from Lake Ontario, northward by way of Lake Champlain, and up the Saint Lawrence from Quebec. Such a division of forces permitted the advance on Montreal to begin without waiting for a concentration of all the forces, it made use of widely separated supply and transportation facilities without overtaxing any of them, and it cut off any French retreat to the west.

In modern warfare the principle of mass becomes more questionable. The importance of mass in parachute drops had been stressed in plans for airborne operations during World War II. However, high winds and other factors caused plans to go awry over Sicily for the 82d Airborne Division and paratroopers were scattered as much as 60 miles apart, all the way from Noto to Licata. About one-eighth of the parachute force landed in front of the 1st Division, as planned. Nevertheless most of the assigned missions were accomplished, and much unplanned for assistance was given in front of the 45th Division and the British and Canadian units as well. Allied officers were bitterly disappointed with the operation. Germans were tremendously impressed by it. It is possible that the scattered drop was more effective in disrupting the enemy than would have been a drop massed according to plan.

Again in Normandy parachute units were scattered over 40 miles up and down the Cotentin Peninsula, but they were effective. German counterattack plans for moving against concentrations of paratroopers were of little use when few concentrations could be found. Commanders preparing to rush out in one direction were distracted by firing of scattered paratroopers in another direction. In some situations it is conceivable that an airborne division deliberately scattered all over an enemy's communication system might accomplish far more than a massed division dropped directly into a battle position.

When we come to a consideration of atom bombs, the principle of mass begins to sound completely out of place. On one hand it seems to make little sense to speak of concentrating atom bombs. If an enemy had 20 hydrogen bombs at his disposal for an attack against the United States, would his most effective use of them be to drop them all in the area New York--New Jersey--Philadelphia? Or, might it not be much more effective to scatter them all across the country, one each at such places as Boston, New York, Philadelphia, Pittsburgh, Cleveland, Detroit, Birmingham, Chattanooga, Cincinnati, Indianapolis, Chicago, Sault Sainte Marie, Saint Louis, Kansas City, Minneapolis, Denver, Seattle, San Francisco, Los Angeles, and San Diego? On the other hand the prospect of facing atomic artillery and guided missiles and bombs makes it more imperative than ever that military forces and military facilities be widely dispersed.

ECONOMY OF FORCE

Economy of force "is a corollary to the principle of mass." This is a principle which needs a new emphasis. It is a necessary principle, we are told, in order to permit the concentration of forces at another place. The principle of economy of force is one which should be extended to the conduct of war itself. It should be extended to include Saint Augustine's principle that only so much force must be applied as is required to attain the objective. Such extravagances as the dropping of 50 times as many bombs on the Cologne area in December 1944 as was necessary to do the job of knocking out the transportation system (according to the United States Strategic Bombing Survey) seem inexcusable. It is difficult to find justification for the utter destruction of St. Lo on the night of 6-7 June 1944. Presumably as a part of their effort to isolate the Normandy battlefield, American airmen bombed St. Lo heavily at 2000, 6 June, then more devastatingly shortly after 2400. But that was not enough. They returned at 0300 and again at 0500 to bomb this already virtually destroyed town which had no war industries, was no key transportation center, and from which most of the German troops had withdrawn.

Many people seem to operate on the principle that anything which hurts the enemy or brings destruction upon him is to be encouraged. Again, victory is equated with total destruction of the enemy. Any destruction beyond that which contributes directly to the objective is unwise, for it only makes worse the postwar problems which will have to be met; it is inexpedient for it tends to arouse resentment on the part of allies and defiance on the part of enemies; and it is immoral because it claims the lives and the way of living of people beyond even what might be justified in terms of military necessity, or certainly beyond what should be the basic objective of restoring justice and peace.

SURPRISE

Surprise is another of those principles which seems to be almost a universal truism, but even here exceptions must be admitted. There are times when it may be an advantage to advertise one's strength, and even one's intentions. When Henry Bouquet marched into the Ohio country in 1764 to put down Pontiac's uprising, he was able to accomplish his mission without a battle, simply by marching a sizable force of 1,500 men boldly through the heart of the enemy territory, and then drawing his troops up in full display before treaty negotiations. The Allied practice later in World War II of dropping warning leaflets on cities before bombing served to demonstrate the complete Allied superiority. Warning leaflets dropped on St. Lo, where there were no flak batteries, and when the German Air Force was nearly impotent, might have saved the lives of French civilians with very little risk to the airmen.

SECURITY

Certainly few would question the necessity for security so that one's own forces will not be subject to surprise. Here the problem is not to point out exceptions, but to improve the application of the principle.

Following what has come to be traditional American intelligence doctrine, the explanatory statement of this principle says: Adequate security against surprise requires a correct estimate of enemy capabilities. . . .

Time and again we are told in our intelligence schools, "We are interested in determining the enemy's capabilities; we are not mindreaders, and we do not want to go off on a tangent of trying to figure out his intentions." Yes, capabilities are important, but is that enough to give us security? Of what use is intelligence if we cannot estimate the enemy's intention? The failures of American intelligence in recent years have been spectacular. We

might know very well that the Japanese are capable of launching an attack anywhere in the Pacific, but what good does that do if we cannot find out that they are intending to attack Pearl Harbor? All kinds of intelligence reports are marshalled to show us that it had been correctly estimated that the Germans were capable of launching an offensive through the Ardennes in December 1945, but what good did they do us when we were unable to find out the German intentions? On the other hand the Germans knew that the Allies were capable of invading the European coast anywhere from the Bay of Biscay to the North Sea, but they could not defend equally everywhere, so what good did it do them? Everyone knew that the North Koreans were capable of attacking South Korea in 1950, but we had not learned their intentions and we were surprised. Everyone knew, too, that the Chinese were capable of attacking across the Yalu River in November 1950, but we did not learn their intentions and were surprised again.

CONCLUSION

The principles of war, of course, are still sound, but it is doubtful whether they should be presented as unexceptionable principles, unalterable maxims, and established axioms. Exceptions, modifications, or improvements may be found for every one of them, and they should be admitted and discussed frankly. To teach young officers that there are universal rules may be a disservice to that flexibility in thinking which is essential for meeting new situations. An officer student's exercise should never be marked down purely on the ground that it departs from the normal application of a principle of war. If he can demonstrate reasonably that his solution will contribute more toward the basic objective although it deviates from the traditional principle of war, then his paper should be marked upward, not downward. The underlying principle that illuminates the principles of war should be bold imagination. No idea should be too fantastic or too unorthodox to be rejected without a fair hearing. Any military instruction which curbs the development of bold imagination should be modified. That includes presentations of the principles of war.

APPENDIX 4 TO LESSON 1, CA SUBCOURSE 33

The following is a reproduction of a presentation made by Dr. Bernard Brodie of The Rand Corporation to Command and General Staff College on 7 March 1957. The views expressed in this presentation are Dr. Brodie's and not necessarily those of the Department of the Army or the U. S. Army Civil Affairs School.

Dr. Brodie: "Gentlemen, when I was invited here last year, for the first time, to speak on this same subject, I felt constrained to write to General Davidson, who had extended the invitation, to tell him that he must have made a mistake. It was not that I was unduly modest, or that I didn't want to come, but rather that I was aware of the ideas which are generally standard at institutions like this one concerning the principles of war, and I knew that those views I had given expression to in print had not been in harmony with that standard conception. I deduced from General Davidson's reply that if the administration of the College had made a mistake, they weren't going to admit it. That explains last year. Now this year, well, General McGarr is an old friend--we served at the National War College together--and old soldiers are known to be sentimental.

"I understand that you have already had some lectures on the principles of war, and that you are familiar with what is meant when one principle or another is mentioned by name. That incidentally demonstrates one of the ways in which the conception of principles is most useful. It gives us a sort of short-hand, wherein a mere phrase can convey a very considerable body of thought and mutual understanding, which is of course characteristic of specialized vocabularies in all sciences. The function of a jargon is, to be sure, frequently abused by scholars who have forgotten how to write or think in English.

"I should like to say a few things about how the general idea of "principles of war" evolved. Let me first attempt to make confusion less confounded by pointing out that the word "principles" may have one of two meanings. In its broader sense it may mean simply a well-understood and commonly accepted philosophy concerning the governance of strategy. I think that was what was intended by the older writers on strategy, who often referred to the principles of war without attempting to name or even to define them. In its narrower and more recent sense, however, the words "principles of war" are intended to mean a body of axioms or maxims, usually numbered, the number rarely exceeding ten or eleven, each one generally expressed in a single sentence, or even in an incomplete sentence. I am referring to such phrases as, "the principle of concentration," or the "principle of the offensive,"

and so on. I intend to talk about the principles of war under both concepts; that is, first as a general body of knowledge and secondly as a particular list of maxims, but mostly under the latter, because I think that is what was intended in the invitation extended me.

"Military science or strategy is both the oldest and at the same time the least developed of the human sciences. Upon a little reflection, it is not at all remarkable that it should be so. The fact that it is so ancient means that its pursuit much antedates the modern scientific age, in which we feel uncomfortable without an elaborate body of analytical laws for every major department of human knowledge. The fact that the direction of war was for many centuries the calling exclusively of princes and of the aristocracy certainly helped to keep it nonintellectual. And by the time the modern scientific age arrived, there was already enough that was esoteric about the practice of war to encourage scholars, with very few exceptions, to leave it to the professional soldier. The soldiers themselves, on the other hand, tended to do rather little writing themselves. For good and obvious reasons, generalship is not a scholarly calling. In fact, there is something about it which is basically incompatible with a scholarly temperament. The soldier has always prided himself on being a man of action, rather than of theory. He values such qualities as the ability to lead men to grasp instinctively the qualities and intentions of his opponent; to resolve on a plan of action, preferable simple; and to stick to it through fair weather and foul. These are rare qualities and noble ones, but they are not scholarly in character.

"Historically, the most intellectual and scholarly of our generals and admirals have not been the most successful. There have, of course, been exceptions. One notable exception is the elder Von Moltke, the man who led the Prussian Army through the brilliantly successful wars of German unification. He was Prussian Chief of Staff for over 30 years (they didn't then believe in rotation when they had a good man), and yet he was a man of quite exceptionally scholarly attainments. As a matter of fact, as a young man he earned his way through school by translating Gibbon from the English into the German. But his contemporary, our own General Halleck, who was known in the Army as "Old Brains," who had written a treatise on international law, and who for a time was general-in-chief during our Civil War, was far from being conspicuously successful as a general.

"Admiral Alfred Thayer Mahan, perhaps the most scholarly and intellectual among American military officers, also acknowledged himself in his autobiography to be rather unsuited temperamentally for the military profession he had chosen. During his last command at sea, as commanding officer of the cruiser "Chicago," he got a bad fitness report from his superior.

Much ink has been spilled over the question whether or not he deserved to get a bad fitness report, but the question is really totally irrelevant to Mahan's stature as a theorist of naval strategy.

"I think it is fair to state that among the historic writers on strategy there has been only one mind of the very first rank--that of Karl von Clausewitz. There have been a few others of high but still secondary status, like Jomini, Du Picq, Mahan and Douhet, and they are scattered over a century of time; even so, the number remains rather small. One sometimes wondered how the body of ideas or rules that we now call "principles" was in fact transmitted through the ages. There is no doubt that certain basic doctrines were somehow kept alive from ancient days, or, if not kept alive, then somehow rediscovered on the basis of common sense and discernment.

"If, for example, one reads Xenophon's account of the Greek Expedition into Persia, the Expedition of the 10,000 as it is sometimes called, one finds in the rather frequent speeches of the Greek generals to their mercenary troops views expressed that are very similar to some of those we now called principles of war. So far as we know, there were no lists of principles of those days. In general, the rules of correct action seem to have been acquired both by individual experience and by the oral advice of one's elders, and that is not so unusual or remarkable if one considers that that is the way wisdom about strictly personal conduct is transmitted even today. While we know that there is a great and continually developing body of knowledge concerning human conduct, including the whole field of psychoanalysis, the best practitioners of the art of living and of dealing with others are not always the ones who know most about it on an intellectual level. We recognize the existence of talent, or lack of it, in the pursuit of that art, as well as in the pursuit of the arts more closely pertaining to our subject of this morning.

"I should like now to return to Clausewitz just for a moment, in order to consider the origin of the so-called "principles of war," the original elucidation of which is frequently attributed to him. It is true that most of what we presently call "principles of war," are to be found revealed and developed in that great book of his entitled "vom Kriege," or "On War". Yet, in that book he specifically denied that there were any such things as rules or principles, a denial for which his contemporary, Jomini, took him severely to task. What Clausewitz meant was that the ideas about the conduct of war that he was trying to develop and elucidate could not be reduced to a few simple and tersely-expressed rules. And if one reads Clausewitz, in the full text, that is, rather than in one of the severely edited editions that has been made available, one sees why that is so. Clausewitz is as much concerned with all the qualifications and exception to the basic idea he has expressed, as with

the original idea itself. He apparently considered one no more valid than the other, and in this he reveals his great wisdom. His latter-day editors, who think they do a great service by deleting all the qualifications and exceptions, have failed to understand the measure of his greatness.

"In Clausewitz, one finds innumerable wise and valid thoughts, but no single rule, except perhaps the recurrent insistence that the pursuit of war ought to be politically purposeful--that the political objective should guide the military conduct of the war. That happens to be the one great idea that has almost been forgotten in the last hundred years.

"What of Jomini, who reproached Clausewitz for denying the existence of principles? Well, one finds Jomini arguing that there are indeed principles of strategy, yet over a very long life which covered a great many publications, he never settled down to elucidating just what they were. Certainly one does not find in his writings any table of numbered items, such as we are so familiar with today.

"Coming closer to our own time, we found that the man who was later to become the supreme Allied commander of World War I also wrote, earlier in his career, a number of books on strategy, one of which was actually called, "The Principles of War." But even in Foch's book of that title, one still finds no listing of specific rules.

"I am not myself a sufficient scholar in the history of the principles of war to know exactly when these listings were developed. You have had in this College a Colonel Fallwell, who in an excellent article he published in the May 1955 issue of your Military Review on this very subject quotes a revealing remark by General Fuller. General Fuller relates how, in 1911, he read in a British Armed Service Field Regulation that "The fundamental principles of war are neither very numerous, nor in themselves very abstruse" but that he had searched for them in vain. Spurred on by the need for valid principles, General Fuller finally evolved nine principles, and in 1923 he had the satisfaction of seeing most of them printed in the Service Manual. Whether or not this is actually the beginning, I don't know. But we can take it as being at least roughly so.

"Colonel Fallwell tells us also in his very fine article that while references to "the fundamental principles of war," occur earlier, the first actual listing of such principles in U. S. training manuals is found in the Training Regulations 10-5 of 1921, which simply gave the names of the principles without explanation. Apparently this kind of knowledge was something

everyone possessed. This list was rescinded in 1923. The Field Service Regulations of 1928, on the other hand, treated the principles without naming them. It was not until the 1949 edition of Field Manual 100-5 that we have an American official Army publication that both names and discusses the principles of war. Note that is within our present decade.

"Perhaps one reason for the long delay in the codification of the principles of war is that the modern age is characteristically the age of the encapsulation of learning, so that one may take it quickly, painlessly, and therefore without interfering with more important pursuits. This is the era of the survey course in the Colleges, of the Reader's Digest on the newsstands, and of the one-page briefing sheets in government offices. Mind you, I do not object to these things. They are unquestionably necessary for a busy man, and therefore presumably for good government. I am not one of those who believe that a little knowledge is necessarily a dangerous thing. A little knowledge may be vastly better than no knowledge at all, especially since I have not observed that complete ignorance on a subject necessarily makes men more humble or cautious in their opinions on that subject. I have also seen cases where condensations of a report contained more wit and wisdom than the full report. In fact, I have written such condensations of my own writings. However, I have always felt that where a single page actually succeeded in conveying what has been contained in two hundred, then someone had permitted himself to be awfully lax with time and words. Certainly, when I come to criticize the principles of war, as I shall do presently, I will charge them with attempting to present in far too condensed a form the knowledge that has been acquired through much time and hard experience.

"Let us first say the favorable things that deserve to be said. If we take the usual listing of the so-called principles of war, in the form of seven to eleven numbered items, we find that they are essentially commonsense propositions. They have all the virtues of commonsense propositions, which means, among other things, that it is useful to remain aware of them. Because they are usually stated in brief and terse form, they provide also a rather useful mechanism for helping one to keep some basic ideas in the forefront of one's mind, much like the sign "Think" that we have all seen on the walls of many offices--though perhaps I could have chosen a less futile example. If we take, for example, the idea of the "principle of concentration," we find that the mere expression of those three words can help to remind the general that in war there are likely to be innumerable demands on one's resources, and merely keeping in mind the fact that one must be strong somewhere enables one to resist better the less important demands. It will, in addition, help our general to organize usefully in his mind some of his own

experience, as well as the vicarious experience which one can gain from the study of history.

"Because the principles of war are really commonsense propositions, most of them apply equally to other pursuits in life, including some which at first glance seem to be pretty far removed from war. For instance, if a man wishes to win a maid, and especially if he is not too well endowed with looks or money, it is necessary for him to clarify in his mind exactly what he wants with this girl--that is, the principle of the objective--and then to practice rigorously the principles of concentration of force, of the offensive, of economy of forces, and certainly of deception. Nor is it necessarily damning to the principles of war that they are also applicable to other pursuits. But it does being to suggest--and this is the main feature of my argument--that these principles are perhaps too abstract and too general to be very meaningful in themselves, too devoid of content to have any very specific application.

"To show you how abstract it can become, I must tell you what happened to the so-called principle of "economy of forces" sometimes put in the plural and sometimes in the singular, "economy of force." Whoever it was who first propounded that principle in precisely that language obviously had in mind the 18th and 19th century connotation of the word "economy" which was very different from the contemporary connotation. Today the word "economy" simply means economizing or skimping, although in former times it was much more likely to suggest shrewd husbandry or shrewd usage.

"Thus, in its original meaning the term "economy of forces," as explained even in so recent a book as Sir Frederick Maurice's "Principles of War," had the force of an injunction to use all one's resources, that is, not to let any go wasted. There have been many battles or campaigns which one side lost because its commander, for one reason or another, failed to utilize all the resources available to him. General Joe Hooker lost the battle of Chancellorsville, in spite of a tremendous numerical superiority over Lee, mostly because he committed less than half his forces to the battle. The injunction to use one's forces to the full is a particularly important one in view of the apparently conflicting requirement that, in entering battle, a commander should see to it that he has certain reserves which are not committed too soon. At the appropriate time, however, they should be used, unless success first intervenes. Yet you and I have seen the principles of war discussed by persons who thought that the "principle of the economy of forces" meant simply that one should do a military job with the least forces necessary for that job. When the words can remain the same while the

meaning is twisted to almost the exact opposite of what was originally intended, one begins to wonder just how useful was that phrase.

"Incidentally, I am told by one of my friends, a physicist, that there has been a comparable twisting of the meaning of one of the words in the familiar phrase: "the exception that proves the rule." My friend was often troubled by that phrase because, being a scientist, he could not see how an exception could ever confirm a rule. He looked into it and found that the word "prove" as originally used has the less common connotation of "testing;" in other words, the phrase was originally meant to mean "the exception that tests the rule," which, of course, makes a great deal more sense.

"I suggested a few minutes ago that one fault of the usual list of principles is that it represents too much condensation of wisdom, or perhaps tends to conceal the absence of wisdom. I take my example from a list of ten principles of war adopted within the last decade by the Canadian Chief of Staff Committee for use in the guidance of the Canadian armed forces. Number seven on that list is our old friend "economy of forces," only this time it is given the somewhat different name: "economy of effort." I want to say first of all that the connotation is in this instance correct, or at least in line with traditional use. But how do they explain its meaning?

"In reading the statement verbatim, I am going to emphasize certain words which are not italicized in the original text. "Economy of effort" implies a balanced employment of forces and a judicious expenditure of all resources with the object of achieving an effective concentration at the decisive time and place."

"I submit, gentlemen, that the problem is precisely to know what a balanced force should properly be in the present day. With all the new weapons and techniques that are crowding upon us, the same thing is true for all the other words I emphasized. What should their specific meaning be in this terribly baffling age of ours--baffling in many respects, but baffling above all in respect to the profession to which you are committed?

"This brings me now to what I consider the chief danger of the principles of war as usually stated, which is that they tend often to be regarded not as axioms or as common sense propositions, but as religious dogmas. That is what one might expect of a list of rules or dicta which are offered as a substitute for knowledge gained the hard way--that is, by experience implemented by reading and reflection.

"Let me now give you an example of where adherence to the principles of war resulted in what I think is generally acknowledged to have been a grave blunder. Out of many examples available, I shall use one from World War II, and, with deep regret, one that is American-made.

"The memoirs of the commander of the Third Fleet at Leyte Gulf, Admiral William F. Halsey, tell how he arrived at his main decision in the battle of October, 1944, which in terms of the number of tonnage of ships engaged was not only the greatest naval battle of that war but of all time. We cannot say it was the most decisive battle of the war, because by that time the Japanese were pretty well licked, and some of them knew it. Nevertheless, it was the climatic experience of the Pacific war.

"When the three separated enemy forces had been located, and when it was clear that the southern-most of the Japanese forces would be taken care of by Admiral Kincaid quite adequately, Admiral Halsey drew up for himself three alternatives with respect to the other two forces, the one coming through San Bernardino Strait and the other far away to the north. First, he could keep his entire force concentrated off the mouth of San Bernardino Strait; second, he could divide his forces, keeping one portion off San Bernardino Strait and sending the remaining force north to counter Admiral Ozawa's fleet; and third, he could send his entire force northward against Ozawa. I am not necessarily giving them in the same order in which he presents them in his memoirs, but those are the three alternatives he considered. He tells us that he rejected the first of these alternatives, that is, staying off San Bernardino Strait (I'll shortly tell you why), and then he rejected the second one because it conflicted with the principle of "concentration of force." And so he chose his third alternative, that of throwing the whole force against the northernmost enemy force, which meant throwing ninety ships against sixteen, those sixteen being individually much inferior to their counterparts among our ninety!

"We now know that Admiral Ozawa's mission was to lure the Third Fleet northward, but that he himself thought that his forces were not strong enough to serve that decoy mission. Logically, he was right. But, nevertheless, he did succeed.

"The American commander finally broke with the principle of concentration of force. After he had sent his force three hundred miles northward, and when his six new battleships were within forty-five miles from their target, he was finally induced to turn them around and send them south again. After stopping to refuel his destroyers, he rushed on ahead with the faster "Iowa" and "New Jersey." The force that he was sending ahead at this time was now much inferior to that which he hoped to catch.

"The principle of concentration of force is intended to suggest that one should so allocate ones forces that one can hope to be superior to the enemy somewhere, preferable at a decisive place--or at least to minimize ones inferiority in the decisive place, if one has to be inferior. But the Commander of the Third Fleet had forces so overwhelmingly superior to those of the enemy that he could have divided his forces between San Bernardino Strait and the north and still have remained overwhelmingly superior locally to each enemy force. When one is overwhelmingly superior, how much more superior does one want to get?

"Perhaps, in the end, it was a good thing it happened that way. If those battleships had won a glorious naval victory off San Bernardino Strait, as I think they would have done had they stayed there, who knows how much longer we would have continued to build the type afterward.

"I should like to say a few words now about another kind of axiom or maxim which differs from the principle with a capital "P" in that it is to have the virtues of commonsense about it. This I shall call the "slogan." The slogan may originate in experience or in fancy, it may enthrall a particular service or the whole profession of arms; but it in case tends to become dogma, and therefore to provide at the moment of its ascendancy the key to the basic decisions.

"Again, to give a naval example, throughout the whole latter half of the nineteenth century, during a period of great experimentation in naval architecture, a very common axiom in naval manuals was "The ram is the most formidable of all the weapons of the ship." How did that axiom originate? Well, you remember the famous "Virginia" or "Merrimac" of our own Civil War. On the first day that she came out at Hampton Roads, she rammed and sank a grounded Federal frigate. I believe it was the "Congress." Throughout the remainder of the Civil War, numerous other attempts were made at ramming; none of them succeeded. Throughout the rest of the nineteenth century almost all of the naval engagements that occurred were characterized by attempts of ramming. There was only one success in battle, at the battle of Lissa in 1866, when the destroyed ship was again stationary in the water. Incidentally, there was one success in peacetime in a British tactical maneuver in the Mediterranean where Admiral Tryon lost his flagship and his life as well as the lives of about 500 other men. The incident is described in the movie called "Kind Hearts and Coronets."

"Some warships during that era were actually built as rams without armament, and all battleships carried a huge projection at the prow, below the waterline, which was intended to be a ram, and which always effected adversely the handling qualities of the ship.

"Or take the slogan derived from du Picq, the very brilliant officer who met an untimely death in the first few months of the Franco-Prussian war. A much-quoted statement from his writings was: "He will win who has the resolution to advance." Du Picq derived this idea from a very careful study of the battles of antiquity in which he discovered that the main reason for the enormous disparities in casualties between victor and vanquished was that the latter had turned and fled. Soldiers can't fight facing backwards, and since those who fled were not more fleet of foot than their opponents, they not only lost the battle but also lost tremendously in human life. Thus, du Picq concluded that the one thing an army must absolutely do in battle is face forward, thus, the slogan: "He will win who has the reservation of advance." This slogan which was repeated again and again in the years following his death, became the fixed idea of an extremist school in France prior to World War I. It was used as an exhortation for extreme adherence to the so-called principle of the offensive, and you find it so used in Foch's pre-war writings. If one wants to find examples of the ruin of nations following from too-rigid adherence to principles with a capital "P", one could tarry awhile with the principle of the offensive, especially with the unhappy story of France in World War I.

"But, to give you an instance of another slogan from more recent times, let me return to my example of Leyte Gulf. The reason Admiral Halsey gave for rejecting the idea of staying off the San Bernardino Strait was that there was a slogan in the fleet: "The enemy's main forces are where his carriers are." Now, I submit that that conception was true for the preceding two years of the war; but at the time of Leyte Gulf, it was no longer true. I submit also that intelligence was available to the fleet which indicated that it was no longer true. We knew the characteristics of the remaining enemy carriers at this time, and we knew they were much too puny to be an effective force. We could not, of course, know that they were not even carrying airplanes; but we should have known that the most planes they could fly were far too small to be decisive in any sense of the word. We also had sufficient experience to know that the Japanese naval air forces at that time amounted in quality to nothing like what they had been in the first year of the war. In other words, at Leyte Gulf the enemy's main force in fact lay where his battleships were. That was just too hard to believe in view of the dominance of the slogan.

"Incidentally, you have all heard another slogan that we might consider for a moment: "Any decision is better than none." Indecisiveness is supposed to be an awful thing. I agree that it is an awful thing, but to say that any decision is better than none--well, if Admiral Halsey had been in a fit of pathological indecisiveness for 24 hours his fleet would have been in the right place on the following day.

"The slogan is objectionable for the same reason that an undue deference to the principles of war is objectionable. It acts as a substitute for thinking, and any substitute for thinking is likely to be a bad substitute. It conforms to what my scientific friends call a high-confidence probability. The slogan introduces a rigidity of thought, which after all is its purpose. Such rigidity may also prevent the realization of what would otherwise be absurdly obvious.

"These admonitions apply to all walks and professions of life and not simply to the military profession. The medical profession too has its slogans, as do other professions, and they usually have the same stultifying effect. But the military, I think, have a special problem, because a military service is a tightly knit institution, ruled through hierarchy of rank, the members of which generally share (more true in the past than in the present, but nevertheless still true) a common kind of education, a common tradition, and mutual lifelong association. Above all, there is little to test their ideas about war between one war and the next. The slogan may indeed represent a brilliant insight of the past, but if so, it is brilliant and insightful only at its first utterance; when it becomes common currency, it is already likely to be counterfeit.

"I should submit, therefore, that one of the first tests for a sound strategy is freedom from the dominance of slogans. Let us rather study history, the experience from which the slogan was derived. But, of course, when we talk about the virtues of reading military history, let us remember also that we are now entering a world of markedly new and therefore unprecedented problems, and that past experience will often be a misleading guide for the future. But I do believe that the past studied liberally and with freedom of spirit furnishes the perspective by which the future can be viewed in a more just light. Anyway, without such perspective, we have nothing. After all, what distinguishes you people from civilians is a perspective based on your own experience and that of your predecessors. Without this perspective we have nothing, nothing save the cliches parade under the name of old and presumably unchanging principles. These cliches are also thought by many to give us the conclusive answers in tomorrow's problem. Would it were so. If it were so, things would be so much easier. Thank you very much."

EXERCISES

I. GENERAL SITUATION. The 80th Inf Div has recently been activated at FORT GORDON, GEORGIA, where it is currently undergoing training. Higher headquarters has directed that the staff officers of the division receive refresher instruction on subjects appropriate to their echelons of operations.

II. SPECIAL SITUATION. You are Commanding General, 80th Inf Div. The General and Special Staffs will shortly commence refresher instruction on the fundamentals of combat. You have decided to address this class with some introductory remarks relative to the principles of war, and you have prepared a concise sentence which described the meaning of each of the nine principles.

DIRECTIONS. The following questions are multiple choice type. Each question has only one correct answer. Indicate your choice by placing an "X" through the appropriate letter on the answer sheet.

1. The principle of the objective is best described as
 - a. utilizing the available means and effort to achieve a decisive, obtainable goal.
 - b. the sustained power needed for a penetration and exploitation.
 - c. the impetus of the attack in increased pressure on the enemy.
 - d. the early seizure of high ground and critical terrain.
2. The principle of the offensive is best described as
 - a. having the primary purpose of capturing or destruction of enemy personnel.
 - b. being especially suited to Armor units as Armor has battle-field mobility and offensive shock action.
 - c. keeping the enemy off balance by planning and executing operations which impose one's will on the enemy.
 - d. the closing with and final destruction of the enemy utilizing fire and maneuver.

3. The principle of simplicity is best described as requiring

- a. singleness of authority to produce maximum effort.
- b. utilization of superiority to the point of decision.
- c. a commander to keep the fewest number of separate units in the attack.
- d. uncomplicated plans and orders to permit common understanding.

4. The principle of unity of command is best described as

- a. the establishment of a single authority to direct the integration of all elements of combat power to achieve maximum effort.
- b. the promulgation of direct, simple plans and clear, concise orders to minimize the confusion of combat and increase the chance of success.
- c. leadership, discipline, and morale, as well as sound organization to attain maximum teamwork.
- d. directing all efforts toward carrying out a feasible mission with minimum loss of life.

5. The principle of mass is best described as

- a. the combining of combat arms into forces in the proper proportion to fight the tactical situation.
- b. the concentration of means at the decisive place and time for a decisive purpose.
- c. specifically limiting the superiority to the point of decision.
- d. placing the majority of available units in the main attack.

6. The principle of the economy of force is best described as

a. the use of minimum power in a given area or areas in order that major forces may be available elsewhere.

b. making the maximum use of firepower in lieu of military forces.

c. the use of the minimum force necessary to accomplish a given mission.

d. a philosophy stipulating that the faster the units move and accomplish their missions, the smaller will be their losses and the more effective their gains.

7. The principle of maneuver is best described as

a. creation of confusion in the enemy's ranks by achieving the maximum practicable military superiority at the decisive time and place.

b. transporting our troops by all available means and the proper utilization of combat deception measures to assist in the accomplishment of the mission.

c. always providing for the timely movement of security forces for the front, flanks, and when necessary, the rear.

d. the movement of combat power to a more advantageous position with respect to the enemy, thereby providing the necessary mass at proper time and place for attainment of the object.

8. The principle of surprise is best described as the

a. principle of taking the enemy unawares by striking him when, where, and in a manner for which he is unprepared.

b. application of combat deception measures, such as a feint or demonstration, to assist in throwing the enemy off balance and subject him to our real combat power.

c. varying of our methods and techniques of combat to cause confusion and low morale in the ranks of the enemy.

d. employment of all deceptive measures to make the enemy unaware of our true intentions in any type operation.

9. The principle of security is best described as

a. embracing all measures taken to guard against hostile interference with operations.

b. the continuous effort to obtain and evaluate information.

c. protection of supplies or supply establishments against enemy attack, fire, theft, and sabotage.

d. the responsibility for exercising staff supervision over the safeguarding of all classified matters.

III. SPECIAL SITUATION CONTINUED. You are still the Commanding General, 80th Inf Div. You have directed that the G3 prepare a series of practical exercises with requirements, and accompanying sketches, for the Battle Group commanders and staff officers to analyze, that will emphasize the necessity for understanding the principles of war. In addition, a short true-false test will follow the discussion of the exercises. You are now discussing the solutions to the problems in relation to the principles of war.

DIRECTIONS. The following questions are multiple choice type. Each question has one or more correct answers. Indicate your choice(s) by placing an "X" through the appropriate letter(s) on the answer sheet.

10. In the First Requirement, which principles of war did Colonel, 1st BG, 87th Inf emphasize?

a. None

b. Simplicity

c. Security

d. Economy of force

11. In the First Requirement, which principles of war did Colonel, 1st BG, 87th Inf violate?

a. Mass

b. Surprise

c. Economy of force

d. None

12. In the Second Requirement, which principles of war did Colonel, 1st BG, 87th Inf emphasize?

a. None

b. Maneuver

c. Mass

d. Simplicity

13. In the Second Requirement, which principles of war did Colonel, 1st BG, 87th Inf most seriously violate?

a. Mass

b. Maneuver

c. Security

d. Economy of force

14. In the Third Requirement, which principles of war did Captain, Co D emphasize?

a. Mass

b. Economy of force

c. Security

d. Offensive

15. In the Third Requirement, which principles of war did Captain, Co D, violate?

a. Unity of command

b. Surprise

c. Maneuver

d. Simplicity

16. In the Fourth Requirement, which principles of war did Colonel, 1st BG, 87th Inf emphasize?

a. Surprise

b. Security

c. Offensive

d. Maneuver

17. In the Fourth Requirement, which principles of war did Colonel, 1st BG, 87th Inf violate?

a. Surprise

b. Offensive

c. Security

d. Maneuver

DIRECTIONS. The following statements are either TRUE or FALSE. Indicate your selection of the correct answer by placing an "X" in the corresponding space on the answer sheet.

18. The principle of security is protection from surprise and hostile interference in order to gain and maintain the power of free action.

19. The principle of mass means the concentration of superior combat power at the decisive time and place.

20. The principle of economy of force means adherence to simple plans, concise orders, and formations that facilitate control.

21. The principle of the objective means striking the enemy when, where, or in a manner for which he is unprepared.

22. The principle of simplicity means the employment of minimum essential means at points other than that of decision.

23. Maneuver is the movement of forces to favor accomplishment of the mission by the positioning of combat elements to place the enemy at a relative disadvantage.

24. The principle of surprise means the direction of all effort towards a decisive and obtainable goal.

25. Unity of command means the assignment of a single responsible commander to each effort.

26. The principle of the offensive means the seizure, retention, and exploitation of the initiative.

27. Major Huston takes exception to the statement that the primary objective in war is the destruction of the enemy's armed forces.

28. Major Huston's discussion of the principle of simplicity gives the impression that if an operation is complex it obviously violates the principle of simplicity.

29. Dr. Brodie put emphasis on mobility and the need to exploit air lines of communication and supports the idea that maneuver will be more important in the future than in the past.

30. Major Huston contends that surprise is another of those principles which seem to be almost universal truisms; therefore, his position is incompatible with FM 100-5.

31. Dr. Brodie's article contains the most comprehensive discussion of the principle of mass (concentration).

32. Lt Col Fallwell's article suggests that, like all doctrine, the principles of war are subject to change.

LESSON 2 - FUNDAMENTALS OF THE OFFENSE

Credit Hours - - - - - 2

Text Assignment - - - - - FM 100-5, Paras 69-78, 174-178,
200-270, 346-350.

Materials Required - - - - - None

Lesson Objective - - - - - To provide you with the necessary
offensive fundamentals applicable to
division level.

Detach the answer sheet, enter your solutions as indicated, and
mail in the addressed envelope provided.

EXERCISES

I. GENERAL SITUATION. The 80th Inf Div has recently been activated at FORT GORDON, GEORGIA, where it is currently undergoing training. Higher headquarters has directed that the staff officers of the division receive refresher instruction on subjects appropriate to their echelons of operations.

II. SPECIAL SITUATION. You are G3, 80th Inf Div. Another subject for the division's staff officer refresher course is the "fundamentals of the offense." You will present this subject at the second meeting of the class, and you are now studying available references to ensure your understanding of the subject.

DIRECTIONS. The following questions are multiple choice type. Each question has one or more correct answers. Indicate your choice(s) by placing an "X" through the appropriate letter(s) on the answer sheet.

1. What is the relationship between offensive fundamentals and the principles of war?

a. Any sound offensive operation will ensure full application of the nine principles of war.

b. Offensive operations best represent the application of the principles of war.

c. The principles of war were designed primarily for offensive operations.

d. There is no relationship because the principles of war are theoretical and offensive fundamentals are applicatory.

2. The purpose of offensive operations is

a. to exert pressure along a wide front.

b. to pass around the enemy's main battle position and seize an objective in his rear area.

c. to attack because it is the only way to defeat an enemy force.

d. the destruction of the enemy's armed forces, the imposition of the commander's will on the enemy, or the seizure of territory for future operations.

3. How does a turning movement differ from an envelopment?

a. While a battle group may occasionally make a turning movement for a division, turning movements are usually executed at a higher echelon.

b. An envelopment applies to small units and turning movement applies to large units.

c. The distinction in the forms of maneuver exists primarily in the intent of the commander since in most operations a combination of forms is employed.

d. The turning movement is an independent or semi-independent operation with the maneuvering force usually going quite deep and not expecting support from the fixing forces.

4. How does the direction of attack differ from the axis of advance?

a. The axis of advance is similar to a direction of attack but is more restrictive.

b. Bypassing is not permitted, and the specified direction must be followed.

c. Axis of advance may be used to indicate to subordinate units a general direction of advance.

d. When necessary for unity of effort, a direction of attack is assigned to a subordinate unit which requires that unit to direct its effort in the specified direction.

5. If a division is executing a single envelopment, what form(s) of offensive maneuver may its battle groups be executing?

a. Single envelopment.

b. Single and double envelopments.

c. Single and double envelopments, penetrations, turning movements, and night attacks.

d. Single and double envelopments and penetrations.

6. How may the main attack be weighted?

a. Fire support.

b. Assignment of best approach.

c. Assignment of a maneuver zone.

d. Location of reserves.

7. The two main elements of a plan of attack are

a. plan of maneuver and fire support.

b. plan of fire support and counterattack.

c. adequate forces and sufficient time.

d. surprise and an assailable enemy flank.

8. In the attack of an enemy position, which of the following tasks should be performed?

a. Fight

- b. Find
- c. Finish
- d. Fix

9. Which of the following most closely describes a difference between the main and secondary attacks under all conditions?

- a. More manpower is allocated to the main attack than the secondary attack(s).
- b. The unit(s) making the main attack have more inherent firepower than the unit(s) making the secondary attack(s).
- c. The objective of the main attack has more tactical importance than the objective(s) of the secondary attack(s).
- d. The bulk of the available logistical support is allocated to the main attack.

10. When is the use of one axis of advance favored?

- a. The enemy situation is vague.
- b. Ease of control is important.
- c. The terrain is restrictive.
- d. There is a need to concentrate fires.

11. Which of the following control measures usually is most restrictive to a division commander who has an attack mission?

- a. Final objective
- b. Zone of action
- c. Phase lines designated by Corps
- d. A direction of attack assigned to a battle group by division

12. The degree of success attained by night attacks is largely dependent on

- a. training of troops.
- b. hasty reconnaissance.
- c. complex plan of operation.
- d. effective control measures.

13. Which of the following is the most extensive effect that nuclear weapons have had on the forms of maneuver?

- a. The availability of atomic weapons may make the penetration a more acceptable form of maneuver.
- b. Nuclear weapons have made a turning movement less desirable.
- c. They have made a double envelopment easier to coordinate.
- d. They have created much confusion in the minds of commanders as regards distinguishing the forms of maneuver.

14. When phase lines are utilized in the attack, a unit, upon reaching a phase line, will

- a. halt and report its location to the next higher headquarters.
- b. halt and wait for orders to continue.
- c. report its location to the next higher headquarters and continue on its mission.
- d. halt, reorganize, and prepare to continue on order.

15. Exerting pressure along a wide front while another form of action is occurring in a different area best described

- a. penetration.
- b. frontal attack.

c. envelopment.

d. turning movement.

16. Which factors must be considered in determining the strength and composition of the reserve?

a. Mission

b. Enemy situation

c. Terrain

d. Troops available

17. What major effect does increased air-mobility have on a commander's selection of a form of maneuver?

a. Increased air-mobility limits a commander's choice of variations and combinations of offensive maneuver.

b. Air-mobility might permit the early seizure of the decisive objective or points vital to the turning movement enroute to the objective on the ground.

c. Air-mobility does not change the conditions which favor the adoption of a specific form of maneuver.

d. Air-mobility enables a commander to use a vertical envelopment in any situation.

18. Which of the following are pertinent to the ideal location of the reserve of an attacking division?

a. One which permits the employment of the reserve in the area of the main attack in the shortest period of time.

b. Distance, rather than time, is the important consideration in determining the availability of the reserve.

c. If the reserve is physically close to the main attack force, a dangerous concentration of force may result.

d. Dispersal of the reserve in several locations must be based on its ability to concentrate rapidly for employment and to disperse rapidly for security.

DIRECTIONS. The following statements are either **TRUE** or **FALSE**. Indicate your choice by placing an "X" in the appropriate space on the answer sheet.

19. Frontal attacks are usually confined to secondary attacks with the primary object of maintaining pressure and thus preventing enemy disengagement.

20. If a division is executing a single envelopment, its battle groups may be executing single and double envelopments, penetrations, and night attacks.

21. Nuclear weapons and superior land and air-mobility will permit a numerically inferior force to launch a successful offensive against a larger force by means of rapid and vigorous exploitation after atomic preparation.

22. The manner in which the attacking force may be transported (e.g., air versus vehicle) is the principal difference between an envelopment and a turning movement.

23. Exploitation follows a successful penetration, envelopment, or link-up with airborne forces dropped in the enemy rear.

24. The frontal attack seeks to secure the decisive objective and normally contains the greatest practicable concentration of combat power.

25. Sketchy intelligence of enemy strengths and dispositions beyond the line of contact favors a strong initial reserve for a division with heavy atomic support that is making an attack against a strongly prepared enemy defense.

26. Guerrillas and partisans are used to further the confusion in the enemy's ranks and to hamper his retreat or efforts to reorganize.

27. The principle of maneuver is applied to alter the relative combat power of military forces.

28. CBR support of an attack is characterized by extensive use of persistent chemical agents.

29. The main attack pins down the enemy to prevent his escape and his capability of reacting against the frontal attack.

30. Pursuit is a type of offensive military operation which is a phase of exploitation.

31. The main attack is characterized by extensive use of persistent chemical agents.

32. The main attack is characterized by extensive use of persistent chemical agents.

33. The main attack is characterized by extensive use of persistent chemical agents.

34. The main attack is characterized by extensive use of persistent chemical agents.

35. The main attack is characterized by extensive use of persistent chemical agents.

36. The main attack is characterized by extensive use of persistent chemical agents.

37. The main attack is characterized by extensive use of persistent chemical agents.

38. The main attack is characterized by extensive use of persistent chemical agents.

39. The main attack is characterized by extensive use of persistent chemical agents.

40. The main attack is characterized by extensive use of persistent chemical agents.

LESSON 3 - FUNDAMENTALS OF THE DEFENSE AND RETROGRADE

Credit Hours - - - - - 2

Text Assignment - - - - - FM 100-5, Paras 271-329

Materials Required - - - - - None

Lesson Objective - - - - - To provide you with the necessary
defensive and retrograde funda-
mentals applicable at division level.

Detach the answer sheet, enter your solutions as indicated, and
mail in the addressed envelope provided.

EXERCISES

I. GENERAL SITUATION. The 80th Inf Div has recently been activated at FORT GORDON, GEORGIA, where it is currently undergoing training. Higher headquarters has directed that the staff officers of the division receive refresher instruction on subjects appropriate to their echelons of operations.

II. SPECIAL SITUATION. You are G3, 80th Inf Div. Another subject for the division's staff officer refresher course is the "fundamentals of the defense and retrograde." You will present this subject at the third meeting of the class, and you are now studying available references to ensure your understanding of the subject.

DIRECTIONS. The following questions are multiple choice type. Each question has one or more correct answers. Indicate your choice(s) by placing an "X" through the appropriate letter(s) on the answer sheet.

1. In general, which of the following is the most difficult to control and conduct?

- a. Double envelopment
- b. Mobile defense
- c. Position defense

- d. Retrograde operation
- 2. In a position defense the reserve is employed primarily to
 - a. block an enemy penetration.
 - b. cover the withdrawal of friendly troops in the event of an enemy penetration.
 - c. counterattack the enemy penetration.
 - d. secure the flanks.
- 3. The mobile defense is conducted
 - a. to the rear of the area to be defended.
 - b. in and around the area to be defended.
 - c. immediately forward of the area to be defended.
 - d. well forward of the area to be defended.
- 4. In mobile defense the key to success is
 - a. the attack by the striking force.
 - b. detailed fire support planning.
 - c. the establishment of mutually supporting, well located, strong points.
 - d. the action of the strong points system in canalizing the enemy.
- 5. In mobile defense the striking force is located a considerable distance in rear of the strong point system in order to
 - a. afford maximum security for the striking force.
 - b. occupy good blocking positions.
 - c. provide adequate maneuver room for the attack by the striking force.

d. provide protection from long-range artillery fire.

6. Mobile defense is organized with a

a. main line of resistance and a striking force.

b. strong point system and a striking force.

c. mobile covering force and a combat outpost.

d. series of delaying positions.

7. Relief in place in the defensive is executed either from rear to front or front to rear as directed by the higher commander who considers these factors.

a. Size of unit(s) making the relief.

b. Strength and combat efficiency of unit(s) on line of contact.

c. Atomic capability of enemy.

d. Need for varying pattern of relief.

8. The most desirable employment of the striking force is to

a. attack and destroy the enemy force at a time and place of defender's choosing.

b. attack within the strong point system.

c. attack in rear of the strong point system.

d. reinforce strong points being threatened.

9. In delaying actions, delay on alternate positions has the advantage over delay on successive positions in that it

a. requires less troops.

b. is less fatiguing to the troops.

c. permits delay over a wider zone.

- d. does not require a reserve.
- 10. In delaying actions the reserve is normally committed to
 - a. deceive the enemy.
 - b. block a threatened penetration.
 - c. delay the enemy without becoming decisively engaged.
 - d. slow, stop, repel, or canalize the enemy.
- 11. Withdrawals from action should be timed to take place
 - a. preferably during daylight hours and exceptionally at night.
 - b. preferable during the hours of darkness and exceptionally during daylight hours.
 - c. only during daylight hours.
 - d. only during hours of darkness.
- 12. A delaying action is
 - a. made on a voluntary basis with as much secrecy as possible.
 - b. an operation in which a unit trades space for time and inflicts maximum punishment on the enemy without becoming decisively involved in combat.
 - c. usually conducted following a successful completion of other types of retrograde operations.
 - d. an operation in which a force withdraws without enemy pressure and refuses combat under the existing situation.
- 13. Which of the following constitute the principle difference between position and mobile defense?
 - a. The battle area of the position defense is organized with the aim of stopping the enemy forward of it, while the mobile defense envisions decisive combat occurring within the battle area.

b. Forces in a mobile defense are highly mobile, whereas those in a position defense are seldom if ever mobile.

c. The position defense is a relatively compact defense with mutually supporting defensive positions, while the mobile defense is a fluid defense with forces to block, impede, and canalize the enemy.

d. A position defense is designed to hold one or more pieces of critical terrain, whereas a mobile defense is not so designed.

14. Security elements provided by the division or its subordinate units may include

- a. general outpost.
- b. combat outpost.
- c. reconnaissance and security forces.
- d. local security.

15. To what extent are control measures used in defensive operations and in offensive operations?

a. As much as possible in defensive operations and as little as possible in offensive operations.

b. As much as possible in defensive operations and as much as possible in offensive operations.

c. As little as possible in defensive operations and as much as possible in offensive operations.

d. Used to the minimum required in both types of operations but are reliable communications and control.

16. The primary mission of observation posts in mobile defense is to

- a. deceive enemy.
- b. hold at all costs.

c. observe and report enemy activities.

d. harass and delay enemy by small arms fire.

17. The mission of the general outpost is to

a. warn of enemy approach.

b. deny the enemy ground observation of the main battle position.

c. delay, deceive, and disorganize the enemy.

d. cover the withdrawal of the covering force.

18. Counterattack plans may include

a. assembly areas.

b. zones of action.

c. time of attack

d. a terrain objective.

19. The strong point variation of mobile defense is usually employed when

a. the enemy's mobility is much greater than the defender's.

b. it is essential to hold certain critical terrain features.

c. terrain permits employment of the layer variation.

d. commander has a minimum freedom of action within the defensive area.

DIRECTIONS. The following statements are either TRUE or FALSE. Indicate your choice by placing an "X" in the appropriate space on the answer sheet.

20. Boundaries should not divide responsibility for an avenue of approach unless the avenue is too large to be covered by a single unit.

21. Retrograde operations do include both offensive and defensive philosophies.

22. The mobile defense is an operation designed to insure retention of an area, placing primary reliance upon offensive maneuver, while position defense places primary reliance on holding selected localities.

23. In the mobile defense the observation posts established by strong points in the forward defensive area performs the missions of a combat outpost.

24. If the situation and terrain permit, the counterattack is designed to hit the flank of the penetration and avoid friendly defensive positions.

25. The special requirements for intelligence necessary to defend against guerrillas and infiltrations includes sources of supply.

26. The general trace of the forward edge of the battle area and the various security lines are normally designated by limiting points placed on flank boundaries of the units responsible for organization.

27. In the mobile defense the strong points of the forward defensive area may perform the missions of the general outpost for the remainder of the division.

28. Regardless of which unit prepares the positions along prescribed switch positions, the division commander usually orders occupation of these positions and designates the forces to effect occupation.

29. Switch positions should be prepared for defense in depth whenever possible.

30. Security elements forward of the battle area should be provided with mobility superior to that of the enemy.

31. The night withdrawal is characterized by secrecy, deception, and the requirement of close control.

32. A daylight withdrawal envisions the necessity for fighting to the rear and the covering of the withdrawal of forward elements by other forces.

33. If the design of a defense applies "mutual support" to the maximum, security suffers the most.

34. The striking force commander may be called upon by the higher commander to provide small mobile security and reconnaissance forces to operate in forward defensive area.

35. Normally, the covering force is provided by division and coordinated by corps.

36. A disengagement is a maneuver in which a force not in contact avoids engagement by moving away from the enemy.

37. Retrograde operations are characterized by decentralized planning and centralized execution.